

**LETTER**

FROM

**THE SECRETARY OF WAR,**

TRANSMITTING

*A Report in relation to the Works carrying on*

AT THE

**Pea Patch, in the Delaware River;**

AND ALSO, THE PROCEEDINGS OF A COURT MARTIAL

**Ordered for the Trial of Major S. Babcock.**

THE TESTIMONY TAKEN IN THE CASE,

And the judgment pronounced by the Court thereupon.

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JANUARY 19, 1825.

Read: Ordered that it lie on the table.

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WASHINGTON:

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1825.



REPORT OF THE  
COMMISSIONER OF THE GENERAL LAND OFFICE

JANUARY 1, 1877

THE SECRETARY OF THE WAR  
WASHINGTON, D. C.  
I have the honor to acknowledge the receipt of your letter of the 27th inst. in relation to the matter of the land grant to the State of California, and in reply to inform you that the same has been forwarded to the proper authorities for their consideration.

REPORT OF THE SECRETARY OF THE WAR  
TO THE COMMISSIONER OF THE GENERAL LAND OFFICE

JANUARY 1, 1877

AND ALSO THE PROCEEDINGS OF A COURT MARTIAL

HELD FOR THE TRIAL OF MAJOR S. B. BARNES

AND OTHERS IN THE CASE

OF THE MURDER OF MAJOR S. B. BARNES

JANUARY 1, 1877

AND OTHERS IN THE CASE

WASHINGTON

U.S. GOVERNMENT PRINTING OFFICE

1877



## DEPARTMENT OF WAR,

*January 17, 1825.*

SIR: Pursuant to a resolution of the House of Representatives, instructing the Secretary of War to communicate to the House "copies of all such letters, on file in the Department, or any part thereof, from Major S. Babcock; requesting inspections of the works carried on at the Pea Patch, in the Delaware River, or communicating the state and condition of such works; and, also, the proceedings of a court-martial, ordered upon the said Major S. Babcock, during the last year; together with the testimony taken by the said court, and the judgment by it pronounced in the case." I have the honor to transmit, herewith, a report of the Chief Engineer, which furnishes the information required.

I have the honor to be,

Your obedient servant,

J. C. CALHOUN.

Hon. HENRY CLAY,

*Speaker of the House of Representatives.*



## ENGINEER DEPARTMENT,

*Washington, 18th January, 1825.*

SIR: In obedience to your instructions, I have the honor to present, herewith, to you, "copies of all such letters on file in the department, or any part thereof, from Major S. Babcock, requesting inspections of the works carried on at the Pea Patch, in the Delaware River, or communicating the state and condition of such works; and, also, the proceedings of a court-martial, ordered upon the said Major S. Babcock, during the last year; together with the testimony taken by the said court, and the judgment pronounced in the case," in conformity with the resolution of the House of Representatives, of the 4th of January, 1825.

As the general court-martial was ordered in consequence of the unfavorable report made by the Board of Engineers, in May last, as to the condition of the works on the Pea Patch, after duly inspecting them, and in consequence of the opinion of a court of inquiry, confirming the report of the board of Engineers, which court of inquiry was assembled in May last, at the Pea Patch, with directions to inquire into the state of the works at that place, and to ascertain in what particulars Major Babcock had deviated from the plans furnished him for his guidance in the construction of Fort Delaware, and whether the said works had been executed with due precision, solidity, and skill, the report of the inspection made by the Board of Engineers, and the proceedings of the court of inquiry, being, in a degree, connected with the proceedings of the general court-martial held on Major Babcock, copies of them are presented, herewith, as necessary to a proper understanding of the case.

It may be proper to add, that, since the decision of the court-martial, the Board of Engineers have been directed to repair to the Pea Patch, and make careful examinations, and estimates, of the sums necessary to correct the errors committed by Major Babcock, and to report whether the work, with these corrections, and such additions as were necessary to complete it, would answer the object for which the Fort was originally designed. The Board have fulfilled this duty, and have reported that the sum of 11,715 dollars, 55 cents, will be sufficient to correct the errors referred to, and which, with the additional sum of 59,963 dollars, 95 cents, making 71,679 dollars, and 50 cents, will complete the work according to the original plan, and make such additions as will be necessary to render it permanent and effective.

It may be proper to add, that the estimates, on which Fort Delaware was built, amount to 379,608 dollars, 90 cents, and that the

expenditures, in addition to those which have been found necessary in the progress of the work, and not comprehended in those estimates, together with the estimates for the work now recommended for its entire completion, amount to 101,810 dollars, 73 cents; and that there has been expended on the work 398,024 dollars, 58 cents, according to the monthly reports of the superintending engineers; to which add the estimate of the sum necessary for its completion, comprehending the correction of errors of construction by Major Babcock, will make 469,704 dollars, and 8 cents, which the work will cost when completed, and exceeding the estimates on which the work was built, together with the estimate of the items omitted in the original estimate, viz. 59,963 dollars, 95 cents, 30,131 dollars, 23 cents.

The Board also state, that, although they urge the above expenditure under a conviction of its necessity, they are happy to have it in their power to say, that the objects thereof being accomplished, the Fort may be considered as fully answering the purpose for which it was projected; and that, although many faults of construction are now visible, many of these may be remedied by skill, and none will finally remain, which can be considered as at all injuring its efficiency.

The Chief Engineer thinks it also proper to explain, in this place, the ground on which he made the report that the sum appropriated by Congress, in 1823, would be sufficient to complete Fort Delaware. Major Babcock, the superintending engineer, had been directed to report the sum which would be necessary for the completion of the work, founded on a detailed statement of the part of the work remaining to be done. In his report he estimated that the sum necessary for the completion was 58,000 dollars, which was recommended to Congress for that purpose, and was appropriated accordingly. In the Fall of that year the chief engineer visited the Fort, and was assured, by Major Babcock, that the sum appropriated was not only amply sufficient for its completion, but that a surplus of several thousand dollars would remain; and, relying on the full assurance of this representation, the report was made by the chief engineer that the work would be completed in the course of the year, and that the sum appropriated would be ample, which, however, turned out otherwise. The erroneous estimates of Major Babcock, and the misstatement on this point, constituted one of the charges against him when tried by the court martial.

The chief engineer cannot but remark, that Fort Delaware is the only work which has proved defective, on the final examination, either as it regards workmanship, or the conformity to the plan. The other works have been pronounced, on the final inspection of the Board, to have been executed in a superior manner, and he has the fullest assurance that, under the present organization, and system of inspection, an instance, similar to that of Fort Delaware, will not again occur; but that, on the contrary, there is every reason to believe that

the works now building will be so constructed as fully to effect their objects, and to do credit to the officers under whose superintendence they may be constructed.

Respectfully submitted.

ALEX. MACOMB,

*Major General, Chief Engineer.*

To the Hon. J. C. CALHOUN,  
*Secretary of War.*

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WASHINGTON, May 14th, 1824.

SIR: On the 10th inst. the Board of Engineers visited Fort Delaware, on the Pea Patch, in obedience to your orders of the 30th April, and they have now the honor to submit the following report as to the present state of that work, and the manner in which it has been constructed. The Board will refer to the points on which, in your letter of yesterday, you required information, in the order in which they are stated in that letter.

The first point is, "whether or not that work has been built in conformity to the plan, and with proper solidity, precision, and symmetry; and if not, in what respects these conditions have not been fulfilled." As the Board were not particularly informed as to the nature of the inspection desired by the Engineer Department, and as they were required to hasten to this city, their examination was not so minute as to enable them to go into details as to deviations from the plan, or to refer to particular instances of want of solidity, precision, or symmetry. They, however, are under the painful necessity of reporting, first, that they did observe some deviations from the plans, as to details; that they were not of great importance. Secondly, that the evidences of the foundations of the fort being imperfectly secured are visible in many places—the piles not having been driven home, or to the complete resistance of the ram. Third, that some of the walls are out-of-line, and some of the piers out-of-plumb; and fourth, that the masonry in general is rough and unsightly.

As to the second point, viz: "Whether the appearance of the work would warrant the conclusion that their non fulfilment has been produced by neglect or incompetency, or both, on the part of the Superintending Engineer; and if not, by what other cause they may have been produced," the Board are compelled to report, that they can in no way account for any want of conformity to the plans, or any want of precision and symmetry, observed in the work, but by supposing want of attention on the part of the superintending officer: but they are disposed to believe that the fault of not driving the piles sufficiently may fairly be attributed to inexperience in that description of work.

The Board take great pleasure in stating that no essential injury has resulted from the partial subsidence of the walls and piers, and



that the superincumbent masonry having now probably completed the work which was left incomplete, by the pile driver, no further settlement of any consequence need be apprehended. The Board observed that the mortar used appears to be very strong.

It is important to add, that the measures adopted to secure the Island from abrasion seemed to answer their object perfectly.

We have the honor to be,

Very respectfully,

Your most obed't serv'ts,

JOSEPH G. TOTTEN,

*Maj. Eng. B. L. Col. and M. B. E.*

BERNARD, *Brig. Gen.*

Bt. Maj. Gen. ALEX. MACOMB,

*Col. Com'dt. U. S. Engineers.*

ENGINEER DEPARTMENT, *Aug. 9th, 1824.*

The foregoing is a true copy.

J. L. SMITH, *Capt. Corps Eng.*

*Proceedings of a Court of Inquiry held at Fort Delaware and at New Castle, by virtue of the following order:*

#### ENGINEER ORDER—No. 2.

ENGINEER DEPARTMENT,

*Washington, May 22, 1824.*

The Board of Engineers, under the orders of this Department, having recently inspected Fort Delaware, and it being stated in their report of that inspection, that the work has not been executed in conformity to the plan, nor with proper solidity, precision, or symmetry; the President of the United States has directed that a court of inquiry, to be composed of officers of the Corps of Engineers, be ordered to ascertain the precise nature and extent of the objections to the manner of executing the works of Fort Delaware, which have been represented in the report of the inspection made by the Board of Engineers above referred to, or of any other objections that may be discovered, the causes by which the same may have been produced, and whether, or not, among those causes, are involved the want of skill, or of proper attention, or both, on the part of Major Babcock, the Engineer who was entrusted with the superintendence of the construction of that work; and if want of skill and proper attention on the part of Major Babcock be among those causes, in what instances they have occurred, and in what degree.

It is therefore hereby ordered, that a court of inquiry, to be composed of Lieutenant Colonel C. Gratiot President: Lieutenant Col.



J. G. Totten, and Captain J. L. Smith, members; and Lieutenant G. Blaney, Recorder; assemble at Fort Delaware or New Castle, on the 27th instant, or as soon thereafter as practicable, to carry into effect the following directions of the President of the United States; and particularly to ascertain if the foundations of the Fort have been properly prepared; if the walls, and other parts of the work, have been built with due precision, regularity, and symmetry; and if the workmanship has been properly executed. As a preliminary step in this investigation, it will be necessary that the court, or some member or members thereof, make a minute and thorough admeasurement of the works of Fort Delaware.

The court having performed the duty required by this order, will report in detail the result thereof to this Department, together with their opinion thereon.

By order of the Secretary of War.

ALEX. MACOMB, *Maj. Gen. Chief Engineer.*

FORT DELAWARE, PEA PATCH,  
27th May, 1824.

The Court met, pursuant to the above order.

PRESENT:

Captain J. L. Smith, Member.

The Court was adjourned to Wednesday, the 2d June next, to complete the measurement of Fort Delaware, and to give time for the absent members and the recorder to arrive; to meet either at Fort Delaware or New Castle, as the President may direct.

NEW CASTLE, 2d June, 1824.

The Court met, pursuant to adjournment.

PRESENT:

Lieut. Col. C. Gratiot, corps of engineers, *President.*

Brevet Lieut. Col. J. G. Totten and Capt. J. L. Smith, *Members.*

Lieut. Geo. Blaney, *Recorder.*

The Court being duly organized, was sworn, in the presence of Major Babcock.

In consequence of the measurement of Fort Delaware not being completed, the Court was adjourned, to meet at Fort Delaware, on Wednesday, the 9th June, instant.

FORT DELAWARE, June 9, 1824.

The Court met, pursuant to adjournment.

PRESENT:

Lieut. Col. C. Gratiot, corps of engineers, *President.*

Lieut. Col. J. G. Totten, and Capt. J. L. Smith, *Members.*

Lieut. George Blaney, *Recorder.*

The Court adjourned, to meet again to-morrow morning, at nine o'clock.

FORT DELAWARE, 10th June, 1824.

The Court met, pursuant to adjournment.

PRESENT:

Lieut. Col. C. Gratiot, corps of engineers, *President*.

Lieut. Col. J. G. Totten, and Capt. J. L. Smith, *Members*.

Lieut. George Blaney, *Recorder*.

Auley Parke, a witness, superintendent of Fort Delaware, being sworn, says as follows:

Question by the Court. Have you been employed in the construction of this work? if so, in what capacity, and for how long a period?

Answer. I have been employed as superintendent of Fort Delaware, since March 1818, to the present time.

Question by the Court. What officers of the Corps of Engineers, have been in the superintendence of the work during the period you have been at Fort Delaware, and what officers have acted as assistants during the same period?

Ans. Captain, now Major Babcock, has been the superintendent of Fort Delaware, during the whole of the time that I have been here, with the exception of two or three months, last winter, when Captain De Russey was the superintendent. Major Babcock was absent at this time. Lieut. Brewerton was the first assistant; Captain Dumas was also an assistant to Major Babcock for a short time, in 1823.

Ques. by the Court. Has the construction, so far as it has progressed, been directed exclusively under the superintendence of Major Babcock; and if not, what part thereof has been constructed under Captain De Russey?

Ans. Principally, or all the mechanical work, has been constructed under the superintendence of Major Babcock. Nothing but laboring work was done under the superintendence of Captain De Russey.

Ques. by the Court. How often, in general, was the progress of the work inspected by Major Babcock, and how often by his assistants?

Ans. In general, I believe, Captain, now Major Babcock, inspected the work every other day, as nearly as I can recollect. Lieutenant Brewerton, when assistant, was in the Island, I believe, every day, when the weather would permit. Captain Dumas, when assistant, was, the first part of the time, here generally every day; the last month that Captain Dumas was an assistant to Major Babcock, I am positive he was here only once; the preceding month he was here (perhaps) four times.

Ques. by the Court. Where did Major Babcock and his assistants reside during the progress of the work?

Ans. At New Castle; a distance, as is called, of about five miles.

Ques. by the Court. By whom were the details of the masonry laid out?

Ans. I do not know.

Ques. by the Court. What was the condition of the work when your service at it commenced?

Ans. I think the work was laid out, and some piles under one of the bastions were driven.

Ques. by the Court. Who had the direction of the piling them, and did it devolve on you after you became established as superintendent?

Ans. James Maxwell had the direction of the piling; it did not devolve on me to direct it. I called the rolls, and saw that the men were at work.

Ques. by the Court. Did you, as superintendent, have any control over the masons' work; and if you did, of what nature, and how did you exercise it?

Ans. I had no control over the masons' work.

Ques. by Major Babcock. Was the superintending engineer (Major Babcock) active and zealous in the discharge of his duties?

Ans. I believe he was.

Ques. by Major Babcock. Was he at the Pea Patch in all kinds of weather?

Ans. I believe he was.

Ques. by Major Babcock. Was it difficult to preserve the stakes after they were planted, while piling, and why?

Ans. It was. In passing the pile machine, the stakes which designated the angles of the work, had to be removed. The state of the embankment was such, that the Island was frequently overflowed, which, with the timber that was floating over the island, was another cause for the removal of the stakes.

Ques. by Major Babcock. Did you observe the superintending engineer (Major Babcock) level the work all round with a spirit level?

Ans. I did.

Question by Major Babcock. Did the superintending engineer (Major Babcock) pay particular attention to economy, and the preservation of materials?

Ans. I thought so.

Question by Major Babcock. Were the workmen of all kinds paid regularly?

Ans. They were.

Question by Major Babcock. Was I confined to my bed by sickness, from the fore part of September, until the winter of 1823?

Ans. I cannot remember the precise time, but you were confined for a long time.

Question by Major Babcock. Was it during my sickness, that the visits of Captain Dumas at Fort Delaware, were so unfrequent?

Ans. Yes.

Ques. by the Court. When the stakes were removed, to admit of the passage of the piling-machine, as stated in the answer to a previous question, under whose direction, by whom, when, and how were they replaced?

Ans. They were replaced by Captain Babcock, on his next visit to the island, by measurement from the centre of the work with a line.

Question by Major Babcock. Had I any official duties to perform at New Castle, which made it necessary to reside there?

Ans. I believe you had.

Question by the Court. What were those duties, and how did they make it necessary that Major Babcock should be established at New Castle?

Ans. Some of the duties that required Major Babcock to reside there, I am not competent to judge of; but, among those that made his residence there necessary, were the employment of men, and the purchase of materials.

Question by the Court. In one of your answers you say, you observed Major Babcock level the work all around with a spirit level. What was the state of the work when this was done, and how often, if more than once, was it done?

Ans. I recollect of his levelling the first tier of embrasures; I also recollect of his levelling the second tier of embrasures: I assisted at both of those operations.

Eli Garrison, a witness, being duly sworn, answers as follows, to wit.

Question by the Court. Have you been employed in the construction of this work? if so, in what capacity, and for how long a period?

Ans. I have been employed in the construction of Fort Delaware, as a wharf builder and in pile-driving, more than three years from the commencement of the work.

Question by the Court. Do you know by whom the trace of Fort Delaware was laid out upon the ground? and, if so, by whom, and when?

Ans. It was laid out by Major Babcock; but I do not recollect in what year.

Question by the Court. What officer of engineers superintended the work during the period you were employed at Fort Delaware; and what officer acted as assistant during the same period?

Ans. Major Babcock was the superintendent: I do not recollect of any officer being there as assistant.

Question by the Court. How often, in general, was the work of pile-driving and wharfing inspected by Major Babcock?

Ans. To the best of my knowledge, the first year he came down here from New Castle, from three to five times a week: the other years from three to four times a week.

Question by the Court. Where did Major Babcock reside during the progress of the pile-driving and wharfing?

Ans. I believe at New Castle.

Question by the Court. Who had the personal superintendence and direction of the wharfing and pile-driving?

Ans. James Maxwell had the superintendence and direction of the pile-driving until his death: it then devolved on me. The wharfing was directed by William Murphy and myself.

Question by the Court. In what manner were the piles driven?

Ans. They were driven with a ram, weighing 1600 weight. Its

greatest fall was thirty-three feet. The piles under the front wall were in five rows, three feet from centre to centre, lengthwise with the wall. In the second and fourth rows, a pile was driven into each interval. The piles under the piers were driven in the same manner as those under the wall. I am more certain of a pile having been driven into the intervals under the piers, than under the wall. The piles were from eight to thirteen inches in diameter, and from twenty-five to thirty-three feet long. When we left off driving, they would go from one quarter of an inch to one inch and a half each blow.

Question by the Court. At what height, with respect to low water mark, were the piles cut off to receive the grillage, and how was the grillage formed, and how attached to the heads of the piles?

Ans. I do not remember at what height the piles were cut off. The grillage was formed by first laying a timber lengthwise with the wall, and on each row of piles; these timbers were secured, in many instances, to the piles, by one and a quarter or one and a half inch trunnels—cross pieces were then laid, corresponding with the transverse rows of piles: these timbers were not secured to the pieces below—the lower timbers were flattened on two sides, and the transverse ones on one side—the spaces between the timbers were filled with mud.

Question by the Court. By whom were the details of the masonry laid out?

Ans. By Major Babcock.

Question by Major Babcock. What was done with the heads of the piles that were cut off?

Ans. They were put into the mud between the timbers which formed the grillage.

Question by Major Babcock. Was the superintending engineer (Major Babcock) active and zealous in the discharge of his duties?

Ans. I thought he was.

Question by Major Babcock. Did he lay out every part of the fort in person?

Ans. I believe he did.

Question by Major Babcock. Was he at the Pea Patch in all kinds of weather?

Ans. When I was there, he was.

Question by Major Babcock. Was a great proportion of the piling done under my own eye?

Ans. Yes.

Question by Major Babcock. Was the fort laid out by me repeatedly and carefully?

Ans. It was repeatedly, and, to the best of my knowledge, correctly—I helped you to measure often.

Ques. by Major Babcock. Was it difficult to preserve the stakes that designated the angles of the work, after they were planted, while piling, and why?

Ans. It was very difficult. They had to be taken up to move the pile machine. In drawing the piles to the work the stakes were frequently misplaced.



Ques. by Major Babcock. Did you observe the superintending engineer (Major Babcock) level the work all around with a spirit level?

Ans. Yes, frequently.

Ques. by Major Babcock. Did the superintending Engineer (Major Babcock) pay particular attention to economy and the preservation of materials?

Ans. I thought he did, as much so as any public officer I ever knew.

Ques. by Major Babcock. Were the workmen, of all kinds, paid regularly?

Ans. They were, as far as I know.

Ques. by the Court. When the stakes were removed to admit of the passage of the piling machine, under whose direction, by whom, when, and how were they replaced?

Ans. They were replaced by Major Babcock, as soon as possible, by a resurvey.

William Murphy, a witness, being duly sworn, answers as follows:

Ques. by the Court. Have you been employed in the construction of this work? if so, in what capacity, and for how long a period?

Ans. I was employed at Fort Delaware in laying the grillage about two months.

Ques. by the Court. At what height, with respect to low water mark, were the piles cut off to receive the grillage, and how was the grillage formed, and how attached to the heads of the piles?

Ans. The piles were cut off on a level with low water mark. The second and fourth rows of piles under the front wall, had an additional pile between each of the piles corresponding with those in the other rows. Those under the piers were placed, I think, in the same manner. A timber was laid lengthwise on each of the rows of piles, and in some instances these timbers were fastened to the piles with trunnels. Across these longitudinal timbers, transversed ones were laid over the cross rows of piles; some of these were fastened to the lower timbers, by trunnels, at the commencement of the work; but this practice was afterwards abandoned, as it was thought to be useless. The lower timbers were flattened on two sides, and the upper ones on the lower side. The spaces between the lower timbers were filled with the heads which were cut from the piles; these were laid parallel with the timbers, as were the heads of the piles which were cut off, and placed between the upper timbers. Where we could not get the whole head of the pile into the spaces between the timbers, they were split and wedged in, and then the vacant space was filled in with mud.

Ques. by Major Babcock. Was the superintending Engineer (Major Babcock) active and zealous in the discharge of his duties?

Ans. I thought he was very much so.

Ques. by Major Babcock. Did he lay out every part of the Fort in person?

Ans. I believe he did, for I know of no other person who could do it.



**Ques. by Major Babcock.** Was he at the Pea-Patch in all kinds of weather?

**Ans.** He was, unless it stormed too hard for any body to turn out.

**Ques. by Major Babcock.** Was a great proportion of piling done under my own eye?

**Ans.** I believe it was.

**Ques. by Major Babcock.** Was the Fort laid out by me repeatedly and carefully?

**Ans.** It was.

**Ques. by Major Babcock.** Was it difficult to preserve the stakes, after they were planted, while piling, and why?

**Ans.** I cannot say positively.

**Ques. by Major Babcock.** Did you observe the superintending Engineer (Major Babcock) level the work all round with a spirit level?

**Ans.** Yes.

**Ques. by Major Babcock.** Were the workmen, of all kinds, paid regularly?

**Ans.** Yes.

Benjamin Kline, a witness, being duly sworn, answers as follows:

**Ques. by the Court.** Have you been employed in the construction of this work, if so, in what capacity, and for how long a period?

**Ans.** I have been employed at Fort Delaware, as a mason, from May, 1819, to the present date, whenever there was any masonry to be done.

**Ques. by the Court.** Has the construction, so far as it has progressed, been directed exclusively under the superintendence of Major Babcock, and if not, which part thereof has been constructed under Captain De Russey?

**Ans.** All the masonry has been done under the direction of Major Babcock.

**Ques. by the Court.** What were the instructions under which you commenced and carried on the masonry of the foundations? Was your work laid out by Major Babcock, or any other officer of engineers, and if not, who was it laid out by, if by yourself, how?

**Ans.** The instructions which I received were, that I should strictly adhere to the plan, which was a sketch furnished to me by Major Babcock. The angles of the work were laid out by Major Babcock, personally. The thickness of the foundation was laid out by myself, from a plan furnished to me by Major Babcock.

**Ques. by the Court.** What were the sizes, generally, of the stone used in the foundations, and how were they laid, and particularly those next to the grillage?

**Ans.** The stone is of the ordinary size which is generally used in foundations of large walls. They were laid flat on the grillage. Those above the first course were laid in mortar, the largest surface down. The first course being the largest stone that was used in the foundation, the stone entered beyond the wall above the offset, from one foot to one foot six inches. Some of them entered two feet. The stone which was used in the foundations were generally about twice the size of

those used in the wall above the foundations, and it was generally of a stronger quality than that used in the superstructure.

Question by the Court. As the masonry of the fort progressed, certain changes were necessary in the dimensions, and certain small parts were to be laid out, such as embrasures, tongue-holes, recesses, offsets, stairs, &c.; now, who personally laid out, directed, and inspected these changes and details?

Ans. Those which were not laid out by Major Babcock, were laid out by myself, under his direction and superintendence, with the exception of a part of the embrasures and tongue-holes in the third tier, which were laid out by Lieutenant Brewerton, in face No. 5, of the plan.

Question by the Court. How, and by whom, was the measurement made for payment to the mason; and how were the limits of a preceding measurement ascertained?

Ans. The measurements were made by Major Babcock and myself, until Lieut. Brewerton came on, then the measurements were made by him and myself. The limits of a preceding measurement were generally ascertained by reference to some general level of the work, such as tongue-holes, soles of embrasures, cordons, &c. of which memorandums were kept.

Question by the Court. How often, in general, was the progress of the work inspected by Major Babcock; and how often by his assistants?

Ans. The work was inspected almost daily by Major Babcock, particularly the first two seasons; and from three to five times a-week, the remainder of the time. Lieut. Brewerton was here from three to five times a week, while he was an assistant to Major Babcock. Captain Dumas, while an assistant, was here two or three times a week, except at one period, when he was not here more than once or twice in two or three weeks, and this was at the time that Major Babcock was sick.

Question by the Court. How are the deviations from the line, from the plumb, and from the level, observable in many parts of the fort, to be accounted for?

Ans. I think solely by the inequality of weight on the foundation. I did not observe any deviation in the line or plumb, until the wall was raised some distance above the first tier of embrasures.

Question by the Court. How do you account for the differences of thickness of and height observed in the parapet wall?

Ans. I think the differences in the thickness were caused by the difficulty of keeping a line stretched in windy weather. The differences in the height, I think, are caused by measuring from former levels, which had been deranged by the settling of the work more than I was aware of. These levels, including the coping, were generally established by myself. The first levels were established by Major Babcock.

Question by the Court. How, and by whom, were the stones for the wall inspected and received; and how was it with bricks and lime?

Ans. The stones were generally received by Mr. Park, and measured by myself in the pile. At other times the vessels were measured, and the quantity receipted for by Mr. Park. The bricks, I believe, were always counted by, and receipted for by, Mr. Park. The lime was also received by Mr. Park.

Question by Major Babcock. Was I in the habit of inspecting all the materials that arrived?

Ans. Yes.

Question by Major Babcock. How many general levels were made by me of the work?

Ans. I recollect that there were three, and they were made with a spirit level.

Question by Major Babcock. At what time did Lieut. Brewerton join me as an assistant; and what was the progress of the work at the time he did join?

Ans. It was after many of the great arches were turned.

Question by Major Babcock. What has been the general quality of the materials used in the construction of the work?

Ans. The quality of the materials is good, particularly the lime and sand.

The Court was adjourned to meet again to-morrow morning at nine o'clock.

FORT DELAWARE, June 11, 1824.

The Court met, pursuant to adjournment.

PRESENT:

Lieut. Col. C. Gratiot, Corps of Engineers, *President*.

Lieut. Col. J. G. Totten, and Capt. John L. Smith, *Members*.

Lieut. Geo. Blaney, *Keorder*.

Peter Kline, a witness, being duly sworn, says as follows:

Ques. by the Court. Have you been employed in the construction of this work, if so, in what capacity, and for how long a period?

Ans. I have been employed in the construction of Fort Delaware, as a contractor for the masonry, from the commencement of the masons' work, until the present time.

Ques. by the Court. What were the instructions under which you commenced, and carried on the masonry of the foundations? Was your work laid out by Major Babcock, or any other officer of Engineers, and if not, who was it laid out by, if by yourself, how?

Ans. I was required to superintend the masons' work; the work was laid out by Major Babcock, and by Benjamin Kline.

Ques. by the Court. What were the sizes, generally, of the stones used in the foundations, and how were they laid, particularly those next to the grillage?

Ans. There was a large quantity of stone collected when the work was first commenced, and from these, the largest were selected for the foundation. They were laid, according to my judgment, in the best manner. The stones were from two and a half to three and a half feet in length.

Ques. by the Court. As the masonry of the Fort progressed, certain changes were necessary in the dimensions, and certain small parts were to be laid out—such as embrasures, tongue-holes, recesses, off sets, stairs, &c. Now, who personally laid out, directed, and inspected these details?

Ans. Major Babcock and Benjamin Kline directed these changes.

Ques. by the Court. How, and by whom, was the measurement made for payment to the mason, and how were the limits of a preceding measurement ascertained?

Ans. I do not know; Major Babcock and Benjamin Kline attended to these things.

Ques. by the Court. How are the deviations from the line, from the plumb, and from the level, observable in many parts of the Fort, to be accounted for?

Ans. I should suppose that they were caused by the inequality of weight on the foundations.

Ques. by the Court. How do you account for the difference in thickness, and in height, observed in the parapet wall?

Ans. I cannot tell, unless it was caused by the wind being so heavy as to prevent us from keeping our lines stretched—the deviations from the level are occasioned by the settling of the wall.

Ques. by the Court. How often in general was the progress of the work inspected by Major Babcock, and how often by his assistants?

Ans. Major Babcock inspected the work during its progress, from four to six times a week, and Captain Dumas, in the beginning, was here two or three times a week; but, during the illness of Major Babcock, he was not here more than once or twice in a month—Lieut. Brewerton was here very often.

Ques. by the Court. You say that Major Babcock inspected the work, at short intervals of time; will you tell the Court, if you can, whether it was the Major's practice, at his visits, to examine minutely every part of the work which was going on, and whether he ever caused any that was badly, or incorrectly laid, to be taken down and altered?

Ans. It was his practice to inspect the work minutely, and whenever he discovered any that was badly done, he caused it to be taken down.

Ques. by Major Babcock. What was the quality of the materials used in the construction of the work?

Ans. Very good, particularly the lime and sand.

Ques. by Major Babcock. Was I in the habit of inspecting all the materials that were received?

Ans. Yes.

Ques. by the Court. Was the stone of the best quality that could have been obtained?

Ans. Yes.

Captain De Russey, of the Corps of Engineers, a witness, being duly sworn.

Ques. by the Court. Have you, at any period, had the superin-

tendency of this work? if so, state to the Court, when, and for what length of time?

Ans. I was instructed to relieve Major Babcock, in October last, in consequence of his sickness. I arrived here, I believe, on the 5th of November last, and took the command on the 8th, and continued in the command until the 15th or 16th of December.

Ques. by the Court. While you were in the superintendence of this work, did you observe any want of conformity to the plans in the part then executed, any want of proper solidity, precision, or symmetry, any want of proper execution in the workmanship, or any important defects in the system of accountability, or superintendence by overseers? If so, please to state what you know to the court.

Ans. The first part of the question, relating to the work being constructed in conformity with the plan, I cannot answer, as I had no plan of the work, until within a day or two before I left here, when I received a ground plan from Captain Dumas, which was a copy, as I believed, from the original. In regard to proper solidity in the construction of the work, I discovered that it had settled, and cracked considerably. In regard to precision and symmetry in the construction, I discovered many instances where they had not been adhered to—such as the want of level and straightness of the faces. In regard to the execution of the work, it appeared to me to be bad, as the stone masonry appeared to be laid in indifferent mortar, and large joints. Many of the stone were set with their faces or beds vertically. It appeared to me that proper care was not taken to put large stones at the angles. The brick masonry of the arches over the embrasures, those springing from the piers dividing the embrasures, were made with joints larger than ought to have been permitted. The wood work at that time put up was generally composed of indifferent materials, and the workmanship was bad. The present platform was a part of the wood work referred to above, as were also the uprights or joists which were to support the roof. As relates to the accountability, I know nothing; and in regard to the superintendence by overseers, I did not discover any want of zeal or defect in the one who was here at that time.

Ques. by the Court. Are the uprights for the support of the roof, of which you have spoken, standing in the present roof?

Ans. Those put up in the interior wall have, it appears, all been taken down, and removed; those on the faces of the work still remain; but they have been altered, being sawed off, and by having an additional piece put against them to strengthen them.

Ques. by the Court. You speak of the walls being, in some cases, out of line, and out of level. Did you observe any instances of deviations from the plumb, in the walls or piers? And, if so, were there many instances of such deviations, and were these, in any instances, considerable? How do you account for them?

Ans. The deviation from plumb was evident, by taking the range of the faces. In some places it was considerable. I account for these deviations, first, from the foundation giving way, and secondly, from the want of due attention in the workmanship of the masonry.



**Ques. by the Court.** Were the uprights which you say were placed on the interior of the wall, for the support of the roof, and which were afterwards removed, adequate, in your opinion, to the object for which they were placed there? And if not, why?

**Ans.** They were not adequate, because they were too small, and too far apart for their size. Those on the face of the work had been pieced, which weakened them materially.

**Ques. by the Court.** You have stated your inability to answer to the question respecting accountability. Is it to be understood therefrom, that the means of ascertaining the mode adopted for procuring materials and workmanship, and for applying them in the work, and the mode of settling for them, were not accessible to you? If it is not, will you answer to these points? Will you also state why you were not put in possession of the plans of Fort Delaware, on the transfer of the command to you?

**Ans.** When I arrived at New Castle, I found Major Babcock ill, and it was on that account I supposed he did not turn over to me the papers relative to the accountability. I, at any rate, received none. The only papers which I did receive from Major Babcock were the consolidated returns of the condition of the work, and the orders from the Engineer Department, requiring those returns. I applied to Major Babcock for the plans of the work; he told me he supposed they were in the possession of Captain Dumas. I inquired of Captain Dumas, for them, and he told me they were not in his possession. The ground plan, which I afterwards received from Captain Dumas, had evidently been in the possession of Major Babcock. Captain Dumas denied that he had any plans, when I made the inquiry of him respecting them.

Benjamin Bartram, a witness, being duly sworn, answers as follows:

**Question by the Court.** Have you been employed in the construction of this work; if so, in what capacity, and for how long a period?

**Answer.** I came here on the 11th March, and I have continued as superintendent for Major Babcock, in carpentry, until the present time.

**Ques. by the Court.** What was the condition of the work when your service at it commenced?

**Ans.** The arches were all turned except one, over the gateway; the upper platforms were commenced and nearly finished; there were some uprights and plates placed for the roof, which were removed, because I supposed them to be too light.

**Ques. by the Court.** In measuring the upper platform and the parapet walls, to determine the dimensions necessary for the roof timbers, did you observe any variation in the dimensions of the different parts of the fort, or any deviations from the plumb, from the line, or from the level; and if so, were these considerable?

**Ans.** There is a variation from one inch to six or seven inches in the level of the girders for the roof. There is a little variation in the level of the platforms. These variations are not greater than is usual in large works of this kind.



Ques. by the Court. Who decided as to the plan of the roof?

Ans. Major Babcock.

Ques. by Major Babcock. What is the quality of the materials used in the platforms?

Ans. The quality of the sleepers is of the first kind. The planking is merchantable, but sufficiently good.

Ques. by the Court. Is there any spruce in the upper platform; if so, is spruce as strong or as durable as pine?

Ans. There is spruce in the upper platform—it is as strong, but not so durable as pine.

Lewis Ford, being duly sworn as a witness, answers as follows:

Ques. by the Court. Have you been employed in the construction of this work, if so, in what capacity, and for how long a period?

Ans. I have been employed here as a carpenter since the 11th of March last.

Ques. by the Court. What was the condition of the work when your service at it commenced?

Ans. The upper platforms were nearly finished, excepting over the gate; there were some few posts put up for the roof, but they have been taken down, as they were considered to be too low.

Ques. by the Court. In measuring the upper platform and the parapet walls, to determine the dimensions necessary for the roof timbers, did you observe any variation in the dimensions of the different parts of the fort, or any deviations from the plumb, from the line, or from the level; and if so, were these considerable?

Ans. In measuring the width of the platforms, there is a variation in the length of the girders of from two to eleven inches. I observed very slight deviations from the level of the coping.

Ques. by Major Babcock. What is the quality of the materials used in the platform?

Ans. There are some of the materials of a good quality, and some that are not as good.

Auley Parks was again called as a witness, and examined on his oath of yesterday.

Ques. by the Court. How and by whom were the stones for the wall inspected and received—and how was it with bricks and lime?

Ans. I was the receiver of the stone, brick, and lime, from the time that I commenced duty here; Major Babcock was the inspector; I counted every brick personally; the stone was piled for perching as close as it could be without breaking, and then measured; the vessels that brought the stone were marked to ascertain the number of perch which they contained. A vessel thus marked, would run perhaps a whole season, but if it were discovered that they did not bring the quantity which they said they had, the vessel was repeatedly re-measured, and again marked.

Captain John L. Smith, of the Corps of Engineers, being duly sworn as a witness, answers as follows:

Ques. by the Court. You have been, as one of the members of this court of inquiry, under the orders constituting the court, making a

minute examination and a measurement of Fort Delaware; will you please to state whether you have observed any want of conformity to the plans in the part executed; any want of proper solidity, precision, or symmetry; any want of proper execution in the workmanship; any important defects in the system of accountability and superintendence by overseers; or any evidences of want of skill, or of proper attention, or of both, on the part of Major Babcock; and if want of skill and proper attention, in what instance?

Ans. I understood from Major Babcock, that the work had been laid out by establishing a centre; and from that radii for the capitals of the bastions, as the ditch was full, and as it was impracticable for me to determine the length of the fronts, I resorted to the mode pursued by Major Babcock in laying out the work, for testing the correctness of the trace. To determine the directions of the capitals of the bastions, I placed a stake at the centre of their respective gorges, which were of unequal lengths, and another stake at the centre of the doors of the magazines, respectively, and assumed as the centre of the fort the point at which the convergent lines drawn from these stakes met. In measuring these lines from the centre, so ascertained, to the doors of the magazines, I found them all of different lengths, the greatest difference being seventeen inches. In ranging the faces of the interior of the curtains, there was a deviation in all of them, as to the points they intersected on the faces of the works ranging with them, respectively, and in one instance, it amounted to several feet. Lines measured from the angles of the flank to the opposite angles of the shoulder, were of different lengths in the same front, and in the different fronts—the differences in the same fronts did not exceed between three and four inches. There was a difference in the batten of the slopes all around the work, between the different parts of the same faces, and they generally differed from the plan. There was a difference in almost every part of the work measured, of the height of the wall, from the base of the superstructure to the top of the first slope.

The Court adjourned, to meet again to-morrow morning at 9 o'clock.

Fort Delaware, 12th June, 1824.

The Court met, pursuant to adjournment.

PRESENT:

Lieut. Col. C. Gratiot, corps of Engineers, *President*.

Lieut. Col. J. G. Totten, and Capt. John L. Smith, *Members*.

Lieut. George Blaney, *Recorder*.

Captain Smith continued his evidence, as follows, to wit: The dimensions of the embrasures of the lower tier, differed, generally, with respect to each other, and to those laid down in the plan. In the second and upper tier of embrasures the thickness of the wall only was measured, and the same differences occurred with respect to them. The depth of the foundations having been ascertained to be five feet, instead of seven, as laid down in the plan with which I was

furnished by Major Babcock. In the absence of the Court, a communication stating this circumstance was made to the Engineer Department, accompanied by a suggestion, that it might be desirable to the Court to receive any information on the subject that might be in the possession of the Department. A copy of this communication having been transmitted to Major Babcock, he, in a few days after, informed me that the plans I had received from him were not those originally prepared for the work; but had been made after the foundations had been finished, and the walls of the superstructure had been raised as high as the embrasures of the lower tier. He further informed me, that he had not then in possession the original plan, but had a copy of it, from which he had taken a sketch, which he produced. This sketch was transmitted to the Engineer Department, containing a statement of the particulars just given.

There is evidently a want of proper solidity in the walls and arches of this Fort. Large fissures are discovered to have been repaired in both. The precautions adopted to prevent the extension of these injuries, may possibly have been effectual, as there is no evidence of recent enlargement of the fissures to which they relate. Whether this is because they have been very lately repaired or not, I am not able to say; but there are many evidences of recent injury about the embrasures. That there has been a want of precision and symmetry, and also of proper execution of the workmanship, will have been understood from what has been already stated in relation to the conformity of the work to the plans. In addition thereto, the extreme roughness of the manner in which the masonry has been executed—the apparently total disregard of some of the most essential requisites of strength and symmetry in masonry—such as laying the stones upon their beds, having headers in the facing, and joints as small as practicable, may also be stated. My time was fully occupied in making the admeasurements, and collecting the data upon which the foregoing statement has been founded. The notes of the admeasurements having been submitted to the Court, may be referred to for more minute information touching the objects to which they relate: I, therefore, had not an opportunity of examining the system of accountability and superintendence by overseers. With respect to any evidences of want of skill, or of proper attention, or of both, on the part of Major Babcock, I would suggest to the Court, if an opinion given by me at this stage of the investigation, would not contravene the intention of that part of the order constituting the Court, which requires the Court “to report the result of their investigation, with their opinion thereon.”

The Court was cleared for the purpose of taking into consideration the suggestions of Capt. Smith, relative to giving his opinion with respect to the “skill and proper attention on the part of Major Babcock,” and decided that he be excused from answering to those points of the question.

The Court having gone through all the evidence at hand, it adjourned to the works, and was occupied in measuring and inspecting

until six o'clock, P.M. when it was adjourned, to meet again on Monday next, the 14th inst. at 10 o'clock, A. M.

FORT DELAWARE, 14th June, 1824.

The Court met, pursuant to adjournment.

PRESENT:

Lieut. Col. C. Gratiot, Corps of Engineers, *President*.

Lieut. Col. J. G. Totten, and Capt. J. L. Smith, *Members*.

Lieut. Geo. Blaney, *Recorder*.

The Court adjourned to the works for the purpose of continuing the measurements and inspections which were commenced at the last session, and was engaged in these duties until 6 o'clock, P. M. when it was adjourned, to meet at New-Castle to-morrow morning at 10 o'clock.

NEW-CASTLE, Delaware, 15th June, 1824.

The Court met, pursuant to adjournment.

PRESENT:

Lieut. Col. C. Gratiot, Corps of Engineers, *President*.

Lieut. Col. J. G. Totten, and Capt. J. L. Smith, *Members*.

Lieut. Geo. Blaney, *Recorder*.

The Court was engaged until 2 o'clock, P. M. in examining the minutes of the measurements made at Fort Delaware, by the Court, on the 12th and 14th instants.

The Court was adjourned, to meet again to-morrow morning, 9 o'clock.

NEW CASTLE, Delaware, 16th June, 1824.

The Court met, pursuant to adjournment.

PRESENT:

Lieut. Col. C. Gratiot, corps of engineers, *President*.

Lieut. Col. J. G. Totten, and Capt. J. L. Smith, *Members*.

Lieut. Geo. Blaney, *Recorder*.

Several original plans of Fort Delaware, which were in the possession of Colonel Totten, having been received from New York, the Court proceeded to the examination of Lieut. Col. Jos. G. Totten, of the corps of engineers, who, being duly sworn, says as follows: "In 1815, under orders from General Swift, I made plans for the defence of the Pea Patch, of which these, Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 1st, 9<sup>2nd</sup>, 10; and 11, are either originals, or copies, most of them, I perceive, were made by myself. These plans were furnished to Major Babcock, who located the work on the island, according to these plans, as I then presumed, and who would progress with the work according to these plans, as I supposed, because I was informed by General Swift, then chief engineer, that they had been approved of by the Department. In 1819, I visited the Pea Patch, in company



with General Bernard. The fort had then progressed to about the height of the embrasures, and I then observed that the fort was not placed upon the island in the same manner, as to the direction of the faces, as it was upon the original plan. The difference being this: that a capital of a bastion pointed up the island, instead of a perpendicular to the exterior line, as on the original plan. I do not recollect having noticed at that visit any other deviation from the original project. The Board of Engineers, after this visit, being engaged in the study of the defences for this part of the country, took the subject of the details of the fort on the Pea Patch into consideration. The result of their deliberations was, that the earthen parapet, originally contemplated, might be dispensed with; and, as the substitution of a parapet of masonry would leave a different *terre plain* over the great arches, the gallery piers might also be dispensed with. The Board also determined that it would be better to have passages of communication from casemate to casemate, through the piers in the second tier, than to build them solid, as at first proposed. Some other alterations from the original plans were also thought proper. As the lower tier was in part finished, it was determined that the work should be carried on, according to the original plans, to the height of the floor of the second tier. New plans were necessary for the work above the first tier, which are No. 1<sup>2nd</sup> 2<sup>2nd</sup> 3<sup>2nd</sup> 4<sup>2nd</sup> 5<sup>2nd</sup> 6<sup>2nd</sup> 8<sup>2nd</sup> 10<sup>2nd</sup> and 11<sup>2nd</sup>. and are those which were furnished by the Board of Engineers to govern the superintending engineer in the completion of the work.

In the year 1822, I think, the Board were directed by the Engineer Department, to examine Fort Delaware, and report on the most suitable means for guarding against the injurious effects from the subsidence which had been observed in the walls and piers; and the Board recommended that *buttresses* should be built against the ends of the piers most in danger from this subsidence. I think the Board also recommended that the lower arches, over the passages of communication, from casemate to casemate, should be taken down. These recommendations of the Board account for certain alterations which have been made in the plans. There are, also, other alterations in both sets of these plans, which have no relation to the changes proposed by the Board of Engineers. In No. 3, of the first set, the masonry commenced, according to the original plan, at the level of low water. The plan is altered so as to make it commence at the height of the thickness of the grillage, above the level of low water. Another alteration has been made, which reduces the thickness of the masonry of the foundation of the scarp, one foot. In No. 3<sup>2nd</sup> and 11<sup>2nd</sup>, some of the figures, indicating the interior opening of the embrasures, have been altered from five feet to five feet two inches; and some of those, indicating the width of the *throat*, have been altered from one foot nine inches to one foot ten inches. In No. 11<sup>2nd</sup>, that part of the great arch which was to have been built within the scarp wall, has been erased; and, in the same place, a timber platform for the third tier and uprights and rafters of a roof, have been added. In No. 3<sup>1st</sup>, a

reversed arch is drawn under the passage of communication, which was not contemplated when the drawing was made. This deviation from the original plan was, however, sanctioned by the Board of Engineers, and adopted in their drawings, Nos. 6<sup>2nd</sup>, 10<sup>2nd</sup>, and 11<sup>2nd</sup>. With the exception of these alterations, both sets of the plans are now, I believe, as they were originally made.

Ques. by Maj. Babcock. Were the plans of the island, on which the work was originally located, correct?

Ans. I am induced to think they were not correct, as to the outline of the island; but the principle on which the work was located was this: that an entire front should be faced up the island, which, being then unconnected with the defence of the channels, could be appropriated to stores and quarters. The change in the location of the Fort, makes it necessary to take a face from two fronts, thereby complicating the details of the work, and separating both the quarters and the batteries. As to the command over the channels, owing to the equalization of fire, it is the same in both cases.

The Court was adjourned, to meet again to-morrow afternoon, at four o'clock, for the purpose of enabling the members to visit the quarries at Chester, from which the stone for Fort Delaware was obtained.

NEW CASTLE, 17th June, 1824.

The Court met, pursuant to adjournment.

PRESENT:

Lieut. Col. C. Gratiot, *Corps of Engineers, President.*

Lieut. Col. Jos. G. Totten, } *Members.*

Capt. John L. Smith, }

Lieut. Geo. Blaney, *Recorder.*

Lieut. Col. Totten, of the Corps of Engineers, made the following remarks in addition to his testimony of yesterday: "At the time I made the plans for Fort Delaware, I did not know, accurately, the nature of the ground on which it was to be founded; and, though I presumed that piling and grillage would be necessary, yet, as a careful examination might show either that grillage alone would be sufficient, or grillage supported by comparatively few piles, I did not include the expense of piling and grillage in my estimate; and, in conversations with Major Babcock, before the commencement of the work, I stated, that, owing to this uncertainty as to the nature of the ground, the manner of securing the foundation should be left to the discretion of the Superintending Engineer, and that I was by no means desirous that my plan of piling and grillage should be implicitly followed."

The Court having gone through all other evidence, proceeded to enter upon the record the result of their personal measurements and inspections of Fort Delaware, as follows, to wit:



*Deviations from the Plan.*

The top of the grillage, instead of being on the level of low water, as required by the plans, is twenty-one inches above it.

The foundation walls are 5.20 feet high, and 12.20 feet broad at the bottom, as shown by Major Babcock's plan, marked A. In the original plans, they are laid down at seven feet high, and thirteen feet broad. The difference in the breadth of  $\frac{30}{100}$  of a foot is taken from the interior of the foundation wall.

The arches over the embrasures spring from the cheeks; in the plans they spring from the straight lines drawn from the extremities of the chord of the arch, on the exterior to the extremities of the chord in the interior. The arches of the lower recesses do not enter the wall over the embrasures; in the plans, they are continued through that wall to within a foot of the exterior face.

The great arches do not enter the scarp wall, and they were required by the plans to extend through it to within a foot of the exterior in all the faces except Nos. 16 and 25.

The soles of the embrasures are composed of brick placed vertically, instead of being placed corresponding to the radii of a circle, as required by the plans. Other deviations are noticed under the head of differences in the work, and variations from the plans.

*Differences in the Work, and Variations from the Plans.*

In the upper platform, width varying from 19' 4 $\frac{1}{2}$ " to 21' 3 $\frac{1}{2}$ " should be 21' 4", difference from  $\frac{1}{2}$ " to 23".

In the upper platforms over the quarters, width varying from 23'  $\frac{1}{2}$ " to 23' 7", should be 23' 4", difference from  $\frac{1}{2}$ " to 6'  $\frac{1}{2}$ ".

Parapet.—Differs in its height above the platform 6 inches in a single face, and from  $\frac{1}{4}$ " to 6" in the other parts of the work. As much as 8" difference was observed in the breadths of the recesses of the embrasures of the upper tier, and the positions of those embrasures, in those recesses, vary, in relation to each other, from  $\frac{1}{2}$ " to 6".

In casemates that should be rectangular, a difference of as much as 9", arising from the want of parallelism of the piers, was observed.

The flank casemates, which should be alike, differ as much as one foot in their width next the wall.

The horizontal dimensions of the embrasures vary from  $\frac{1}{4}$ " to 5"—the vertical dimensions of the same from  $\frac{1}{4}$ " to 4".

To ascertain if the intrados of the great arches was level, measurements were made of their distances from the offsets from the wall for supporting the platform of the second tier, to determine their interior height, and from the offsets of the piers for receiving the girders to determine their exterior height; and the result was the discovery of differences in the height above the plane of the platform of the second tier between the apex of the interior, and that of the exterior thereof, in some of them as great as one foot.

The exterior offset at the top of the foundation, varies from 3 $\frac{1}{2}$  to

18". It should be 12". The distances from the soles of the tongue-holes to those of the embrasures, vary from  $\frac{1}{4}$ " to 4" from those laid down in the plans.

The lower exterior talus varies from 2" to  $3\frac{1}{4}$ " greater than the plans require, making the greatest difference  $5\frac{1}{4}$ ". In one face, the difference between the extremities was  $4\frac{1}{4}$ ". The greatest variation from the plan in the whole talus is  $8\frac{3}{4}$ ".

The greatest difference in the thickness of wall, measured in the soles of the embrasures of the lower tier, is  $3\frac{1}{4}$ ", and on the second tier  $3\frac{1}{4}$ ", and on the third tier 9".

The height from the top of the foundation to the soles of the embrasures of the second tier, varies in the embrasures for guns, from 14' 6" to 15'; and in those for carronades, from 14' to 14' 8".

*Deviations from the tracé, and obvious consequences of the irregularities above detailed.*

They are also to be found in parts of the work not otherwise particularly irregular. In one of these, the interior face of a curtain, a line ranged in one direction, will fall upon the centre of an embrasure, and ranged in the opposite direction, will fall upon the pier of the recess of the corresponding embrasure, and distant from its centre between 5 and 6 feet.

The sides of the piers bounding the passages of communication between the casemates generally, are not plumb by several inches; and most of them, which should be in the same plane, deviate from it some inches. These piers were required by the plans to be built of hard stones running entirely through them. They are built generally of stones of a better quality than those ordinarily used in other parts of the work; but these stones seldom run through them, and many of them are soft and friable, and many are laid on their edges instead of their beds.

The Court adjourned, to meet to-morrow morning at eight o'clock.

NEW CASTLE, DELAWARE, 18th June, 1824.

The Court met, pursuant to adjournment.

PRESENT:

Lieut. Col. C. Gratiot, Corps of Engineers. *President.*

Lieut. Col. Joseph G. Totten, and Capt. John L. Smith, *Members.*

Lieut. George Blaney, *Recorder.*

Continuation of the results of the measurements and inspections made by the Court, of Fort Delaware.

*Of precision, regularity, and symmetry.*

The carp-walls and the piers are crooked, and deviating in their

direction: the cheeks of the embrasures are winding and out of plumb: the Fort is not correctly laid out: the proper levels and dimensions are not observed: the embrasures vary in dimensions, as also in their location with respect to the piers, and the mortar joints of the brick arches are not uniform in size.

### *Of Workmanship.*

The foundation and scarp stone masonry is defective in solidity, in consequence of a partial disregard to crossing the mortar joints to produce necessary bond, and, also, to the smallness, generally, of the stone used, and, in many instances, especially at the offsets of the piers intended to support the platforms, stones of a friable character are laid on their edges, without being tied in the wall. In filling up the openings in the piers, occasioned by the removal of the arches of communication in the lower tier, small stones, not tied in the pier, were used and not laid plumb; small stones generally have been used in forming the *skew backs*. The levels generally terminate with small stones not tied in the wall; there is an apparent inattention to the plumb, the line, and the level. The brick masonry of the casemates and embrasures deviates from the plumb and the level; the thickness of the mortar laid in the joints was, in some, more than half inch.

The planks of the upper platform are of pitch and spruce pine, sawed through the thickness of the log, having many bad rents and knots, and are laid without the previous operation of jointing.

It appears, in the evidence of the master mason, that the stone used in the construction of Fort Delaware, was the best that could be procured in the neighborhood. The Court, to be satisfied on that subject, was adjourned to the quarries from which the stone was drawn; the result of investigation is, that harder and larger stones could have been procured by paying a higher price for them.

The paper marked Aa. was submitted by Major Babcock, and read to the Court.

There being no further evidence before the Court, the Court was cleared, and the whole of the proceedings being read over to it by the Recorder, the Court, from the testimony adduced, and the result of their own personal measurements and inspections, pronounced the following opinion:

The Court is of opinion, that, in the construction of Fort Delaware, there has been several deviations from the plans.

That the grillage being raised above, instead of being kept below low water mark, as required by the plans, will, without the precaution of keeping water in the ditch constantly above the top of the timbers, decay, and the durability of the work be consequently diminished.

That the reduction of the thickness of the inner half of the foundation wall about one foot, has tended to affect, injuriously, the stability of the walls, by diminishing the breadth of bearing on the piles generally, and by making this diminution altogether on one side of the centre of gravity.

That the embrasure arches being sustained by cheeks, instead of the mass of masonry behind them, as directed by the plans, a slight injury to the cheeks will produce the fall of the arches.

That the soles of the embrasures, not being made "reversed arches," as required, are liable to be displaced by the concussion of firing. That, in consequence of the arches of the lower recesses not being continued through the scarp wall to within a foot of the exterior surface, as required by the plans, the pressure upon the embrasure arches is too great; and the separation of the embrasures, which is of much consequence to provide for, will be attended with danger to the superincumbent masonry.

That, by not carrying the great arches nearly through the scarp wall, as required by the plans, on the fronts exposed to be battered by vessels, too great a weight is sustained by the embrasures of both the lower tiers, and the danger of the wall, attending a cannonading or a separation of the embrasures, is increased.

And that the other unauthorized deviations from the plans observed by the Court, either in the trace or in the construction of the work, are attended by effects more or less prejudicial to the strength, symmetry, or usefulness of the work.

The Court is also of opinion, from the testimony, and from the effects of partial subsidences in the walls and piers, visible in many parts of the work, that proper care was not taken to drive the piles to a due degree of resistance; and that, in having the grillage above the level of the water, proper attention was not paid to the durability of the work.

The Court is also of opinion, that there are in the work many instances of want of precision, regularity, and symmetry:—in this, that the scarp walls are in many places crooked, and deviating in their directions; that the cheeks of the embrasures are often wiuinding and out of plumb; that the embrasures vary in their dimensions, and also their situation, with respect to the piers; that the embrasures are not situated alike, as to the tongue holes, thereby making it necessary to fit the gun carriages, individually, to the embrasures; that the mortar joints of the brick arches over the embrasures and recesses, are not uniform in size; that the coping is sometimes flush with the wall, and sometimes projects unequally; that the proper levels and dimensions have not been observed; and that the trace of the work is not correctly laid out.

The Court is also of opinion, that, in the general use of small stones in the foundation and scarp walls; in the frequent use of stones of a very friable nature, placed on their edges instead of their beds; in the occasional inattention to the bond, in laying the stones; in filling the openings, left by removing the arches of communication, in the lower tier with small stones, not tied into the piers, and laid, generally, out of plumb; in placing, occasionally, small stones for skew-backs; in levelling, generally, the offsets for supporting the timbers of the second platform with small stones; and in the apparent inattention to the plumb, the line, and the level, there has been a disregard of certain essential conditions of solidity and good workmanship.

And the Court is also of opinion, from the testimony, that there has been no want of personal attention to the progress of the work of Fort Delaware, on the part of Major Babcock; but that, on the contrary, his personal inspections, during his illness, were as frequent as could be necessary. The Court, however, from the statements of witnesses, and from their own inspections and measurements; have been compelled to come to the opinion, that there is a want of conformity to the plans; a want of proper preparations of the foundations; a want of due attention to precision, regularity, and symmetry; and want of proper regard to solidity and good workmanship: and, as there is abundant evidence, that there was no deficiency, as to attention, on the part of Major Babcock, the superintending engineer, they are forced into the opinion, that the defects in the construction of Fort Delaware are the results of want of skill and judgment. As respects the preparations of the foundations, though the Court is of opinion, that there is a want of skill and judgment in the manner of making those preparations; yet, as it is in evidence, in an original letter from Major Babcock to the chief engineer, dated October 1st, 1818, and marked 167, that the superintendent, Major Babcock, requested an inspection of those preparations, previous to commencing the masonry, the Court is of opinion that this request diminishes his responsibility, as to the consequences of the errors in that part of the construction.

Appended to this record, is a statement, marked D, by Major Babcock, of the expense necessary to complete Fort Delaware, and of the means of effecting it, including the materials and funds on hand.

The Court adjourned *sine die*.

C. GRATIOT,

*Lieut.-Col. of Engineers, Pres't of the Court of Inquiry.*

GEORGE BLANEY,

*Lieut. of Corps of Engineers, Recorder.*

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A.

*Mr. President, and Gentlemen of the Court:*

The testimony before you is so ample, that it seems hardly necessary for me to say any thing on the subject. I will, however, make a few remarks by way of explanation. The Board of Engineers have been candid and liberal enough to say (in substance,) that the deviations from the plan are inconsiderable, and not calculated to be injurious: I can add, that they are in a great measure, involuntary, as respects the first alteration from the original plan, which I had entirely forgotten, (it being a number of years since it was made,) I will account for it thus: Colonel Totten had advised me not to place the piles nearer to each other than three feet from centre to centre; the width of the wall, therefore, was too great for five rows, and much more small for six, I therefore determined to make it for five



rows, and finding, by experience, that it would be very difficult to lay stone at the level of low water, I made the tops of the piles as nearly as possible of that height, and added the grillage, deducting the same height of masonry, and of course, preserving the original level of the embrasures; at that time, no specific regulations were made, or instructions given, respecting the mode of carrying on the work, and I did what I thought was right, and what I believed Colonel Totten himself would have done, had he been present, without, however, entertaining the least idea of innovation, or essential change in any part of the plan. In the same spirit, I made a large quantity of wharfing; the necessity of the case required it, and I had no superior to consult with; after the foundation was made, I reported the fact to the Chief Engineer, and requested that it might be inspected; my communication was not noticed. If the gorges of embrasures of the second tier, are one inch too wide, it is what I by no means intended; the linings of the faces of the work, were laid out with the utmost care by myself, assisted by the master mason, and it was not until this season, that I could discover the slightest want of justness in them; in the face where it occurs, it might be attributed to the subsidence of the wall; the same remark will apply to the level: it must also be remembered, that the last part of the work was done while I was very ill in my bed, and of course, cannot be accountable for. Deeming it a matter of impossibility, to cover the casements just made, with mud, and at the same time, permit them to dry, I proposed to the Engineer Department to cover the whole work with a roof, which was agreed to; a wooden platform was laid, and, I trust, will be found the best; at least, until the arches have time to dry thoroughly, which I am confident they never could under any other circumstances. If it should be thought proper to fill the spaces between the arches hereafter, it may be easily done, either with dry mud or sand—another advantage of the roofing is, the supply of water for drinking, and the preservation of gun-carriages. As respects the outward appearance of the wall, I will say I studied strength and economy; the inside of the wall is as good as the outside; and I assure you, gentlemen, that some of the most respectable mechanics in Philadelphia, have pronounced the work to be very good. I considered, and do consider, that it is stronger than if the outside had been of a larger and handsomer stone: the difference in the cost is enormous: in fact, it would afford me pleasure, to see a rigid comparison instituted between Fort Delaware, and any other work in the country, as relates to expense. As to the arches, I defy the critics: no precaution was wanting, to make them as solid as the material will admit of; the mortar used, I assert, with confidence, was of the best kind, and, I believe, the Board of Engineers will bear me out in the assertion. I beg leave to repeat that, in general, the idea of change or innovation, never entered my head; wherever it has occurred, it has been involuntary, or in a manner, forced on me by the necessity of the case, (at least in my opinion.) In conclusion, I have to express my thanks to the Court, for the patience and candor exhibited by them in the course of inves-

tigation, and I feel happy in the belief, that Fort Delaware will be found quite capable of fulfilling its original destination.

S. BABCOCK.

June 17th, 1824.

*The United States vs. Major S. Babcock.*

Charges preferred against Major Samuel Babcock, of the Corps of Engineers, in pursuance to instructions from the War Department, viz:

**FIRST CHARGE—Disobedience of Orders.**

*Specification:* In this, that the said Major Samuel Babcock having, on or about the 15th of May, 1815, been assigned to the superintendency of the works to be constructed on the Pea Patch Island, in the river Delaware, and having been furnished, by competent authority, on or about the 1st day of October, 1815, with plans for the construction of the aforesaid works, did, in such construction, carried on till the 20th of August, 1824, or thereabouts, unnecessarily depart from their provisions in the undermentioned instances, viz:

1st. The top of the grillage, instead of being on the level of low water, as required by the plans, is 21 inches above it.

2d. The foundation walls are 5.20 feet high, and 12.20 feet broad at the bottom, as shown by Major Babcock's plan, marked A. In the original plans they are laid down at 7 feet high, and 18 feet broad: the difference in the breadth of  $\frac{8.0}{10.0}$ ths of a foot, is taken from the interior of the foundation wall.

3d. The arches over the embrasures spring from the cheeks. In the plans they spring from straight lines drawn from the extremities of the chord on the arch, on the exterior, to the extremities of the chord in the interior. The arches of the lower recesses do not enter the wall over the embrasures. In the plans, they are continued through that wall, to within a foot of the exterior face.

4th. The great arches do not enter the scarp wall; and they were required by the plans to extend through it, to within a foot of the exterior, in all the faces except Nos. 16 and 25.

5th. The soles of the embrasures are composed of brick placed vertically, instead of being placed corresponding to the radii of a circle, as required by the plans.

6th. In the upper platform, width varying from 19' 4½" to 21' 3½", should be 21' 4": differences from ½" to 23".

7th. In the upper platform, over the quarters, width varying from 23' ½" to 23' 7", should be 23' 4": differences from ½" to 6½".

8th. Parapet differs in its height, above the platform, 6 inches in a single pace, and from ¼" to 6", in the other parts of the work. As much as 8" was observed in the breadth of the recesses of the embra-

zures of the upper tier, and the positions of those embrasures of the upper tier, and the positions of those embrasures in those recesses, vary, in relation to each other, in most of them from  $\frac{3}{4}$ " to 6".

9th. In casemates that should be rectangular, a difference of as much as 9", arising from the want of parallelism of the piers, was observed.

10th. The flank casemates, which should be alike, differ as much as one foot in their width, next the wall.

11th. The horizontal dimensions of the embrasures vary from  $\frac{1}{4}$ " to 5"; the vertical dimensions of the same, from  $\frac{1}{4}$ " to 4".

12th. To ascertain if the intrados of the great arches were level, measurements were made of their distances from the offsets from the wall for supporting the platform of the second tier, to determine their interior height; and from the offsets of the piers for receiving the girders, to determine their exterior height; and the result was the discovery of differences in the height, above the plane of the platform of the second tier, between the apex of the interior and that of the exterior thereof, in some of them as great as one foot.

13th. The exterior offset, at the top of the foundation, varies from  $3\frac{1}{4}$ " to 18". It should be 12". The differences from the soles of the tongue-holes to those of the embrasures, vary, from  $\frac{1}{3}$ " to 4", from those laid down in the plans.

14th. The lower exterior talus varies from 2" less, to  $3\frac{3}{4}$ " greater, than the plans require; making the greatest difference  $5\frac{3}{4}$ ". In one face, the difference between the extremities was  $4\frac{1}{4}$ ". The greatest variation from the plan in the whole talus is  $8\frac{3}{4}$ ".

15th. The greatest difference in the thickness of wall, measured on the soles of the embrasures of the lower tier, is  $3\frac{1}{4}$ ", and on the second tier  $3\frac{1}{4}$ ", and on the third tier 9".

16th. The height from the top of the foundation to the soles of the embrasures of the second tier, varies, in the embrasures for guns, from 14' 6" to 15', and in those for carronades, from 14' to 14' 8".

17th. Deviations from the trace are obvious consequences of the irregularities above detailed. They are also to be found in parts of the work not particularly irregular. In one of these, the interior face of a curtain, a line ranged in one direction will fall upon the centre of an embrasure, and ranged in the opposite direction, will fall upon the pier of the recess of the corresponding embrasure, and distant from its centre 5 or 6 feet.

18th. The sides of the piers bounding the passages of communication between the casemates, generally, are not plumb by several inches, and most of them, which should be in the same plane, deviate from it some inches. These piers were required by the plans to be built of hard stones, running entirely through them. They were built, generally, of stones of a better quality than those ordinarily used in other parts of the work; but those stones seldom run through them, and many of them are soft and friable, and many are laid on their edges instead of their beds.

SECOND CHARGE—*Neglect of Duty.*

*Specification:* In this, that the said Major Samuel Babcock, while superintending the construction of the works carried on at the Pea Patch Island, in the river Delaware, till the 20th of August, 1824, or thereabouts, neglected to apprise the proper Department of his non-conformity, as set forth in the specification of the preceding charge, to the plans furnished the said Major S. Babcock, by the said Department, for the construction of the abovementioned works, except in the single instance of a letter to General Joseph Swift, dated the first of October, 1818.

*Specification 2d:* In this, that the said Major S. Babcock, while, as aforesaid, superintending the construction of the works erected on the Pea Patch Island, in the river Delaware, did transmit erroneous and irreconcilable statements of the sums necessary to the completion of said works, under the following dates, viz:

The 11th of November, 1822.

The 26th of October, 1821.

The 25th of November, 1822, in reply to a letter from the Engineer Department, of the 19th preceding.

The 22d of January, 1824.

The 29th of January, 1824, in reply to a letter from the Engineer Department of the 24th preceding.

The 17th of February 1824.

Estimate affixed to proceedings of Court of Inquiry, marked D, and presented on or about the 18th of June, 1824.

THIRD CHARGE—*Incapacity.*

*Specification 1st:* In this, that the said Major S. Babcock, while in the aforesaid superintendency of the works carried on at the Pea Patch Island, in the river Delaware, did, then and there, as set forth in the specification of the first charge, depart from the provisions of a plan furnished by the Engineer Department, for the guidance of the said Major S. Babcock in the construction of the abovementioned works, in an absurd and incapable manner.

*Spec. 2d.* In this, that the said Major S. Babcock, while in the aforesaid superintendency of the works, constructed, as aforesaid, on the Pea Patch island, in the river Delaware, did transmit several statements, professing to anticipate all the necessary expenses to the construction of those works, but, nevertheless, erroneous and inconsistent to the number, and under the date enumerated in specification second of the second charge.

*Spec. 3d.* In this, that the said Major S. Babcock, while superintending the construction of the works carried on at the Pea Patch island, in the river Delaware, till the 20th of August, 1824, or thereabouts, did, generally, during that period, give the closest personal attention to the aforesaid construction, and yet did permit, in its workmanship, the introduction of numerous faults, as in the following instances, viz:

1st. In the piles intended to support the foundation.

2nd. In the position of the wood work, or grillage, which surmounts the piles, and supports the masonry of the foundation aforesaid.

3d. In the selection of stones for said foundation, and in the location, without headers, or binders, of those introduced in it.

4th. In the want of uniformity between embrasures intended to be of the same dimensions.

5th. In the want of equal distances between said embrasures, and the tongue holes.

6th. In the want of the necessary thickness in the interior offset of the foundation wall.

7th. In depending upon the cheeks for the support of the embrasure arches, instead of the mass of masonry behind them.

8th. In omitting to make the soles of the embrasures reversed arches.

9th. In not carrying the arches of the lower recesses through the scarp wall, to within a foot of the exterior surface.

10th. In not carrying the great arches nearly through the scarp wall.

11th. In the crookedness of the scarp walls in many cases.

12th. In the irregular direction and winding of the embrasures.

13th. In the want of uniformity in the mortar joints of the brick arches, over the embrasures and recesses.

14th. In the copings being occasionally flush with the wall, and sometimes projecting unequally.

15th. In the non-observance of proper levels, and dimensions, and in the incorrectness of the works traced.

16th. In the general use of small stones in the foundations, and scarp walls. In the frequent use of stones of a very friable character, placed on their edges instead of their beds. In the occasional inattention to the bond in laying the stones. In filling the openings, left by removing the arches of communication in the lower tier, with small stones, not tied into the piers, and laid, generally, out of plumb. In placing, occasionally, small stones for skew backs. In generally levelling the offsets, for supporting the timbers of the second platform, with small stones. In the obvious inattention to the plumb, the line, and the level.

17th. The planks of the upper platform are of pitch and spruce pine, sawed through the thickness of the log, having many bad rents and knots, and are laid without the previous operation of jointing.

**FOURTH CHARGE—***Conduct unworthy an officer and gentleman.*

*Spec. 1.* In this, that the said Major S. Babcock, having, on or about the 15th of May, 1815, been assigned to the superintendency of the works to be constructed on the Pea Patch island, in the river Delaware, and having, on or about the 1st of October, 1815, been furnished with plans for the construction of those works, did, without the knowledge or the consent of the authority furnishing such plans, introduce several alterations in their delineative parts, both numeri-



cal, and architectural, for the purpose of adapting them to his irregular execution of their original provisions, as set forth, at large, in the specification under charge the first.

*Spec. 2.* In this, that, on or about the 9th of June, 1824, at Fort Delaware, Captain Smith, of the corps of engineers, having offered, to a court of inquiry, there assembled, for the investigation of certain of the acts of the said Major S. Babcock, a statement exhibiting a want of correspondence between the foundations of Fort Delaware, and the provisions of a plan descriptive of those foundations, the said Major S. Babcock did, then, and there, deny this statement, and pointed out, to the attention of the aforesaid court of inquiry, certain arithmetical figures introduced on said plan, apparently in harmony with its architectural parts, but indicative of different dimensions when tested by the scale referring to them.

*Spec. 3.* In this, that the said Major S. Babcock did, on the 7th of June, 1824, or thereabouts, at Fort Delaware, furnish Captain Smith, of the corps of engineers, with a drawing, purporting to be a true copy of so much of a more extensive drawing as relates to the foundations of Fort Delaware, aforesaid; and did inform the said Captain Smith, that the plans he, Major S. Babcock, had handed over to him, were not copies of the original plans, agreeably to which Fort Delaware had been built, but were plans which had been prepared, and furnished him, the said Major S. Babcock, after the foundation had been finished; whereas, the aforesaid pretended copy was incorrect, and the aforesaid statement unfounded, in fact, and both made under the knowledge that the original plans were mislaid.

By order of the War Department,

J. L. SMITH, *Capt. of Engineers.*

True copy from the original.

ADJUTANT GENERAL'S OFFICE,

*Washington, 15th January, 1825.*

CHARLES J. NOURSE,

*Acting Adjutant General.*

*Proceedings of a General Court Martial, held at New Castle, in the state of Delaware, in virtue of the following order:*

ADJUTANT GENERAL'S OFFICE,

*Washington, 10th August, 1824.*

ORDERS—No. 61.

A General Court Martial, to consist of seven members, (a greater number cannot be detailed without injury to the service) will assemble at New Castle, Delaware, or at Fort Delaware, as the President of

the Court may determine, on the 25th of the present month, or as soon thereafter as practicable, for the trial of Major S. Babcock and Captain H. Dumas, both of the corps of Engineers, and such prisoners as may be brought before it.

The following Officers will compose the Court:

Colonel S. B. Archer, *Inspector General, President.*

MEMBERS.

Lieut. Col. Roger Jones, *3d Art'y,*  
 Lieut. Col. Charles Gratiot, *Engineers,*  
 Major T. Stockton, *3d Art'y.*  
 Major A. C. W. Fanning, *2d Art'y.*  
 Capt. W. Wade, *4th Art'y,*  
 Capt. F. Ansart, *3d Art'y.*

Capt. George Blaney, *Engineers,* } *Supernumeraries.*  
 Lieut. G. W. Gardiner, *2d Art'y.* }

Lieut R. L. Armstrong, *2d Artillery,* is appointed Judge Advocate to the Court.

By order of Maj. Gen. Brown.

S. COOPER,  
*Aid de Camp.*

AUGUST 25, 1824.

The Court met, pursuant to the preceding order.

PRESENT:

Col. Archer, *President.*

MEMBERS.

Lieut. Col. Jones,	Lieut. Col. Gratiot,
<hr/>	Major Fanning,
Captain Wade,	Captain Ansart.

SUPERNUMERARIES.

Capt. Geo. Blaney, 

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 *Special Judge Advocate.*

In consequence of the Judge Advocate's absence, the Court adjourned till 10 o'clock, A. M. on the ensuing day.

AUGUST 26th, 1824.

The Court met, pursuant to adjournment.

PRESENT:

Col. Archer, *President.*

MEMBERS.

Lieut. Col. Jones	Lieut. Col. Gratiot,
<hr/>	Major Fanning,
Capt. Wade,	Capt. Ansart.

SUPERNUMERARIES.

Capt. Geo. Blaney, 

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 Lieut. G. W. Gardiner.  
 Lt. R. L. Armstrong, *Special Judge Advocate.*

Major Stockton being absent, Captain Blaney was admitted a member of the Court.

The accused, Major S. Babcock, on being asked if he had objections to any member of the Court, as above constituted, objected to Lieut. Colonel Gratiot and Captain Blaney, on the ground of their having been, the first a member, and the second the Recorder, of the Court of Inquiry convened to investigate and to pass an opinion on certain parts of his conduct, now become matters of accusation against him.

In support of that part of the preceding objection which related to him, Lieut. Col. Gratiot confessed himself under the bias of previously expressed opinions upon the acts in question.

Capt. Blaney also stated, in further disqualification of himself, that he had formed and expressed an opinion upon the principal points at issue.

The Court, at this stage of the trial, and under a full sense of the novelty of the proceeding, directed the administration of the oath in usage, and were accordingly sworn.

The Court cleared.—The Court resumed.

The Court decide that the foregoing objections to Lieut. Col. Gratiot and Capt. George Blaney, are good and justifiable, and do sustain them.

The Court then being no longer complete, and taking into consideration the improbability of their being enabled to meet at an earlier date, adjourn until 10 A. M. on the first day of the ensuing month.

September 1st, 1824.

The Court met, pursuant to adjournment.

PRESENT:

Col. Archer, *President*.

MEMBERS:

Lieut. Col. Jones,  
Major Fanning,  
Capt. Wade,

Major Stockton,  
Major Kearney,  
Capt. Ansart.

SUPERNUMERARIES:

Major Hook,  
Lieut. G. W. Gardiner,  
Capt. Belton.

Lt. R. L. Armstrong, *Special Judge Advocate*.

Major Kearney,  
Major Hook,  
Capt. Belton,

having been added to the detail of the Court, and by the following order, were duly sworn, and unobjected to by the accused. Major Stockton was also sworn at this point of the trial, the accused interposing no objections.

## ADJUTANT GENERAL'S OFFICE,

WASHINGTON, 28th August, 1824.

*Orders—No. 67.*

Major James Kearney, Topographical Engineer, is detailed as a member, and Major J. H. Hook, of the 4th Infantry, and Captain F. S. Belton, of the 2d Artillery, are detailed as supernumerary members, of the General Court Martial, now sitting at New Castle, Delaware, and of which Colonel Archer is President.

This detail is made with a view to fill the vacancies occasioned by the objections made to Lieutenant Colonel Gratiot and Captain G. Blaney, both of whom were originally upon the Court.

By command of Major General Brown.

S. COOPER, Aid de Camp.

A question here arose upon the propriety of accepting Major Hook as a member of the Court, preferably to the senior member, junior to him. Captain Belton standing in the same relation to one of the members, his case was included in the above proposition.

The Court cleared. The Court resumed. The Court decide that their existing organization shall remain unchanged.

Major Hook then presented the following appeal, which Captain Belton desired might be considered as equally expressive of his opinions and wishes.

“Major Hook, believing the privileges of his rank assailed by the foregoing decision of the Court, requests he may be excused from attending as a supernumerary member.”

The Court cleared. The Court resumed. The Court refuse their assent to the motion, on the principle of its inexpediency.

The subsequent paper was then offered to the consideration of the Court.

“Major Babcock begs leave to state to the Court, that he wishes to avail himself of professional advice and assistance. He requests the Honorable Louis M. Lane and George Reed, junior, Esq. may be considered as his Counsel.”

Assented to by the Court, under the usual restriction.

The Judge Advocate having then stated to the Court that he found a modification of the articles of charge against Major S. Babcock absolutely essential, and that certain dates, indispensable to an advantageous performance of this measure, could be borrowed, with safety only, from documents in the Engineer Office at Washington, the Court adjourned, to meet again at 10 A. M. on the Saturday ensuing, at Wilmington, a neighboring place, to which the President of the Court had, during the late recess, been authorized to hold its sessions.

WILMINGTON, *September 4th, 1824.*

The Court met, pursuant to adjournment.

PRESENT:

Col. Archer, *President.*

MEMBERS.

Lieut. Col. Jones,  
Major Fanning,  
Captain Wade,

Major Stockton,  
Major Kearney,  
Captain Ansart.

SUPERNUMERARIES.

Major Hook,

Captain Belton.

R. L. Armstrong, *Special Judge Advocate.*

ADJUTANT GENERAL'S OFFICE,

*Washington, 2d September, 1824.*

*Orders—No. 68.*

Major J. H. Hook, supernumerary member of the general court martial, of which Colonel Archer is president, is detailed as member of the same, in the place of Colonel Roger Jones, who is relieved from the detail.

By order of Major General Brown.

S. COOPER, *Aid de Camp.*

In compliance with the preceding order, Lieut. Col. Jones was relieved and Major Hook received as a member of the court.

The Judge Advocate having then stated to the court, that the very recent arrival of the prosecutor with the necessary dates, made a further adjournment of twenty-four hours very essential, to consult with him upon the measures preliminary to trial. An adjournment was ordered till 10 A. M. on Monday morning, Sunday being the intervening day.

*September 6th, 1824.*

The Court met, pursuant to adjournment.

PRESENT:

Colonel Archer, *President.*

MEMBERS.

Major Stockton,  
Major Kearney,  
Captain Wade,

Major Fanning,  
Major Hook,  
Captain Ansart.

SUPERNUMERARIES.

Captain Belton,

R. L. Armstrong, *Special Judge Advocate.*

The Court then proceeded to the trial of Major Samuel Babcock, arraigned on the following charges and specifications:



(Vide articles of charge in Appendix.)

To which the accused pleaded:

"First, Not guilty."

"Second. The said Major S. Babcock, referring himself to the several inspections of the work carried on at the Pea Patch, under the authority of the War Department, from the month of August, 1819, to the month of May, 1823, inclusive, to so much and all such parts of the *first, second, third, and fourth* charges, and the specifications under each, as relate to acts or offences as are alleged, or shall appear to have been committed by him more than two years before the issuing the order for his trial, pleads the provisions of the 88th article of the Rules and Articles by which the Armies of the United States are directed to be governed, by an act of Congress, entitled "An act for establishing rules and articles for the government of the armies of the United States," passed the 20th of April, 1816, and denies his liability to be tried for any such offences."

A letter, admitted by the accused to be authentic, was here produced, and read in testimony, on the part of the prosecution.

(See Appendix, paper marked B.)

J. L. Smith, captain of the corps of engineers, and witness for the prosecution, being duly sworn, says:

*Specification under 1st charge.*

Ques. by J. A. On or about what period did Major Babcock's agency in the construction of Fort Delaware terminate?

Ans. About the 20th of August, 1824.

*Specification 1st under 2d charge.*

Ques. by J. A. Where are you stationed?

Ans. At Washington, in the bureau of the Engineer Department, as assistant to the chief engineer. I have been there upwards of five years.

Ques. by J. A. Has Major Babcock, for the last two years,\* apprised the Department of any departures, in his construction of the works at the Pea Patch, from the provisions of a plan furnished for his guidance, in the erection of the works?

Ans. He has not.

*Third specification, fourth charge.*

Judge Advocate. State to the Court what you know of the occurrences set forth in the specification.

Witness. On the 7th of June Major Babcock called on me at Fort Delaware, and, referring to a communication of mine to the Engineer Department, of the 3d of June, a copy of which I had furnished him with, informed me that the plans I had received from him were not the original plans, but had been prepared by the Board of Engineers after the foundations of Fort Delaware had been completed, and that

\* Note by the Judge Advocate.—This question, as originally put, extended to the whole period of Captain Smith's testimony. It is altered, under a decision of the Court, recorded in the subsequent pages (vide pages 28, 29.)

they differed from those originally conceived. He then presented me with a sketch of the foundations of Fort Delaware, which he represented as taken from a copy of the original plan, made by himself. He added, that his original plan was not then in his possession, but that he would vouch for the accuracy of the copy, and that of the sketch from it. On this representation, and to counteract the effect of my letter of the 3d of June, I suggested to Major Babcock that I would transmit that sketch to the Engineer Department. He expressed himself satisfied with this arrangement, and I accordingly addressed to that Department a letter, which I permitted Maj. Babcock to inspect before committing it to mail, and with which he expressed himself satisfied.

The Court cleared. The Court resumed.

On a resolution of the Court, it was "Ordered, that, whenever, in the course of testimony, a paper or drawing is referred to, it shall, if within reach, be immediately produced."

I obedience to this rule of the Court, several papers containing the delineation of certain plans, referred to in the progress of his testimony by the witness, were laid before them by the prosecution. For the clear apprehension of the Court, they were designated as follows:

Vide appendix.—One sketch marked A.—Nine sketches from one to eleven, exclusive of seven and nine.

The subsequent objection from the accused was then offered to the Court.

"The point of the charge is the non-conformity of the sketch furnished with the copy of the original plans. The objection is, that this non-conformity cannot be proved by parol, where the paper is accessible to the prosecution."\*

The Court cleared. The Court resumed.

The Court acquiesced in the preceding objection.

Witness, in continuation. On or about the 15th of June, 1824, the original plans were received by the Court of Inquiry from Brooklyn, in consequence of an application made for them a few days before. Those plans are now before this Court.

See Appendix—Papers marked 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, referred to in testimony as "original plans." Their edges are bound with green silk, by which they are easily distinguishable from those wearing the same numerical designations.

3 o'clock, P. M.—The Court adjourned, to meet again at 10 A. M. on the ensuing day.

SEPTEMBER 7th.

The Court met, pursuant to adjournment.

PRESENT.

Colonel Archer, *President*.

\* This objection induced, on the ensuing day, an order of the Court, in virtue of which, Captain Smith's testimony was curtailed of some unimportant parts.

## MEMBERS.

Major Stockton,	Major Fanning,
Major Kearny,	Major Hook,
Captain Wade,	Captain Ansart.
Captain Belton, and _____, Supernumeraries.	
R. S. Armstrong, <i>Special Judge Advocate.</i>	

The proceedings of the previous day having been read over, the Judge Advocate submitted the following proposition:

“By a decision of the Court, taken at some period of yesterday’s session, it was virtually determined that parol evidence should not be taken when determinative of the contents of any paper not produced and accessible to the offering party. For the sake of consistency, I would propose that this rule be applied to all oral testimony already received, and such parts of it expunged from the record as shall be found to fall within it.”

The Court cleared. The Court resumed.

The Court confirm the preceding objection, and order it carried into execution.

A member of the Court “proposes the propriety of taking from the record, so much of the evidence under the first specification of the second charge, as shall be found to relate to events of more than two years occurrence.” Whereupon, the Judge Advocate observed, “That the task which Major Babcock had been assigned to, was in the nature of a trust, the violation of which could not warrantably be matter of gratuitous supposition on the part of the Engineer Department, to which alone, and the Executive, he was liable for his loose performance of it. That this Department had been provided with no information, till recently, of the variations set forth in the specification of the first charge, and could, necessarily, still less, be apprized of Major Babcock’s culpability in making no report to them; all of which, it is contended, goes to bring the fact in question, under the reservation of the statute limiting the period open to the investigation of offences.”

To which the accused averred in reply: “That the 88th article was imperative, and comprehended all offences, of whatever character they may be. All official duties are in the nature of a trust, and the neglect or violation of the trust or confidence reposed, constitutes the offence.

The exceptions or reservations in the article are specific; the provision applies, except the accused have absented himself, or there be some other manifest impediment by which he is not amenable to justice. If he is, at all times, amenable to justice, the article is imperative.

It may be true, that the Department cannot gratuitously presume a breach of duty, but it is equally their province to see that the duty of an officer has been performed, as it his to perform it.

There is no proof before the Court that the defendant was remiss in this particular, and the fair presumption, at all events, is,

that the offence, if any, was not considered as forming a sufficient ground of charge within the period prescribed by the 88th article.

It is not the duty of an officer to furnish official information of his own neglect; it is the duty of the Department to seek it, and if it fail to do so within the [time] prescribed by law, and the officer shall have been amenable to justice, he cannot be tried afterwards.

The accused considers the 88th article as applying as well to neglect as to breach of duty. If he had failed to apprise the Department of any variation charged, in the three first years, he could not be tried for that neglect after *five years* had elapsed. He can be tried only for any neglect arising within two years before the order for trial.

The difference may be very material, as if inspections had been made within the first three years, and after the variations had been made, if any, he would have a right to suppose that those inspections had given the necessary information. The case might be difficult in the succeeding years, if even variations had been made, and no inspection thereof, though, it is believed, such is not the character of this case."

The Court cleared. The Court resumed.

The Court "decide that, before proceeding to the decision of the proposition before them, evidence may be given in confirmation, or otherwise, of the foregoing statements."

*Capt. J. L. Smith, witness for prosecution, in continuation.*

Ques. by J. A. You state yourself to have been in the Engineer office, at Washington, upwards of five year; has that officers been apprized, during that period, of any of the instances of improper construction attributed to Major Babcock, in the specification under the first charge?

Ans. Of none, except in the case of that explained by his letter to Gen. Swift, of the 1st Oct. 1818.

A letter marked C, admitted by prosecution to be authentic, was here produced on the part of the accused. (Vide Appendix.)

*Witness cross-examined by accused.*

Q. Are there any letters of the accused in the War Department, received in the month of October, 1818, and March, 1819; or, have you any knowledge of the receipt of such, soliciting an inspection of the work carried on at the Pea Patch?

The Judge Advocate objected to this question in the following words: "Oral testimony, declarative of the contents of a paper accessible to the party in search of it, cannot be admitted. This position is incontrovertible, and is in harmony with the rules of evidence, the resolutions of this Court, and the principles of justice."

In support of the question, the accused replied: "The principle of the question is, that the written papers inquired about, are in the

possession of the prosecution, and that the originals or copies have been called for and not produced. Parol evidence of their contents, therefore, may be given, because it is the best adducible evidence.

The Judge Advocate explained: "The prosecution is erroneously held to be in possession of those papers. The letter of October, 1818, has been extended to the accused and is before the Court in his behalf, (marked C.) The second letter, that of March, 1819, has been called for from the Adjutant General's office, on the suggestion of the accused, and will, doubtlessly, be transmitted in the regular course of mail. It is respectfully submitted to the Court, whether this document may be consistently considered as mislaid or in possession of the prosecution."

The Court cleared. The Court resumed:

The Court decide that the question shall be put.

Question put.

Ans. I have not.

*Cross Examination continued.*

Were there inspections of the said work, under the authority of the War Department, in the year 1819, after the month of March, and the subsequent years of 1820, 1821, 1822, and 1823?

Ans. I am not informed upon the subject.

Ques. If such inspections were so made, were any, and how many, reports made thereon, to the War Department, and filed there?

Ans. There are no such reports.

Ques. Did the Secretary of War, Col. Armistead, Gen. M'Comb, Gen. Bernard, and Col. Totten, visit and inspect said work, in 1819, '20, '21, and '22; and did Col. Gratiot inspect the said works in 1823?

Ans. In the year 1822 I saw an order requiring the Board of Engineers, then consisting of Col. Totten and Gen. Bernard, to repair to the Pea Patch, for the purpose of determining on the best means of checking the progress of some cracks discoverable in the large arches. There was a report of their fulfillment of the order, made by the Board of Engineers, which I also saw.

Ques. by Court. Had the Department any other means within its control than the reports of Maj. Babcock, by which to ascertain his deviations from the plans?

Ans. None.

Ques. by Court. Had the Department any intimation, official or unofficial, of such deviations, within two years after they occurred?

Ans. The Department never knew the date of their occurrence.

Ques. by Court. Was Maj. Babcock held by the Department to follow the plans he had received, in his construction of Fort Delaware?

Ans. Yes.

Ques. by Court. In what manner was Maj. Babcock held to obey the plans furnished him; by special instructions, or otherwise?



Ans. By inference, as a matter of right, and also by special instructions.

Ques. by Court. Were any other instructions relating to the plans furnished Maj. Babcock, other than the letters from Gen. Swift given in evidence yesterday?

Ans. None that I know certainly of.

Ques. by Court. By whom were the special instructions given, and were they in writing or verbal; if the former, are copies on file in the Department?

Ans. The special instructions were given by the Chief Engineer; they are to be found in the correspondence of the Department.

Ques. by Court. At what time did the Department first hear of deviations from the plans furnished to Maj. Babcock?

Ans. In December, 1823.

Ques. by Court. Was Major Babcock at any time, during the two years preceding his arrest, beyond the jurisdiction of the War Department?

Ans. He was not.

Q. by Court. Are you acquainted with any manifest impediment which has sheltered Major Babcock from trial, for failure in reporting alleged deviations on his part, from the plan of construction for Fort Delaware?

Ans. There was no knowledge of any such deviations till December, 1823.

Ques. by the Court. Was an inspection of Fort Delaware instituted by order of the War Department, at any period anterior to the two years immediately preceding the arrest of Major Babcock?

Ans. Not to my knowledge.

Ques. by Court. Was the Engineer Department enabled to institute an inspection of the works at the Pea Patch, at any period prior to the month of May, 1824?

Ans. Not without permitting other, and more important business, perhaps, to remain unfinished, which those officers performed who had previously been assigned to the task of inspection. No other officers, competent to the duty, could have been so employed.

Ques. by Court. What are the regulations of the Engineer Department respecting inspections of fortresses under construction?

Ans. They provide for an inspection of works when finished.

Ques. Is it not customary for the Chief Engineer to pay visits of inspection to works under progression?

Ans. It has been done, but is not customary.

Ques. by Court. When was the Board of Engineers organized?

Ans. In 1816.

Ques. by Court. Was it by law, or by regulation of the War Department?

Ans. By order of the President.

THREE P.M.

The Court adjourned, to meet again at 10 A. M. on the ensuing morning.

SEPTEMBER 8th, 1824.

The Court met, pursuant to adjournment.

PRESENT.

Colonel Archer, *President.*

MEMBERS.

Major Stockton,

Major Fanning,

Major Kearney,

Major Hook,

Captain Wade,

Captain Ansart.

Captain Belton,

Lieut. Gardiner,

} *Supernumeraries.*

R. L. Armstrong, *Special Judge Advocate.*

A document, marked C, (see Appendix.) was offered on the part of the accused, and objected to by the Judge Advocate, in the following terms:

“The paper presented to the Court is the copy of a letter whose inaccessibility to the accused, is not established: for this reason I am compelled to oppose its reception. The almost total unimportance of this document, might warrant the omission of any objection, were it not for opening a door, by such facility, to other and greater irregularities.”

The Court cleared. The Court resumed.

The Court decide the paper in question shall be received.

An original letter from Col. Totten, offered on the part of the accused.

*Objected to by the Judge Advocate, as follows:*

“The letter offered is wholly irrelevant to the matter under examination.”

To which the accused replied as follows:

“The point before the Court is as to the knowledge of the Engineer and War Department, of certain deviations by Major Babcock, in constructing the works at the Pea Patch.”

“The letter offered goes to show not only that a knowledge of such deviations existed in 1816, but that they were specially authorized by a principal officer of the Engineer Department.”

The Court cleared. The Court resumed.

The Court decide the letter shall not be received.

The evidence offered under the *proposition submitted on the 7th by a member*, having terminated, it was determined to take the sense of the Court upon the proposition, viz;

“It is proposed to take from the record so much of the evidence under the 1st specification of the 2d charge, as shall be found to relate to events of more than two years occurrence.”

The Court cleared. The Court resumed.

The Court acquiesce in the above proposal.

The Judge Advocate then requested the Court to adjourn to the works at the Pea Patch, for the purpose of receiving from their own inspection, the evidence of the improper construction, assumed in the specification of the 1st charge.

The Court cleared.

On motion of a member, it was "ordered, that the articles of charge against Major Babcock be submitted to examination, and all objectionable matter ruled out."

*Whereupon, the Judge Advocate presented the following statement:*

"Mr. President and gentlemen of the Court: However ill I may succeed in the task, I cannot, in common propriety, permit this resolution to go into operation without the endeavor, at least, of protecting you from objectionable measures.

The leading accusation against Maj. Babcock is a disobedience of orders, the specific testimony of which is laid in the construction of work dissimilar in many of its parts from that furnished him as his model. This is exhibited at large by the assumption of certain facts set forth in eighteen subdivisions, some of which, as they must have occurred more than two years ago, have given rise to doubts upon the consistency of their admission in matters of charge, with the provisions of the statute of limitation. That statute, gentlemen of the Court, is familiar to you all; it contains a reservation, under which I claim room for the case in point. The departures from the previously settled plan of construction, enumerated in the subordinate parts of the specification, were not discoverable on easy terms, but required the advantage of time and the exercise of a peculiar sort of knowledge; nor was it till the month of December 1823, that the Engineer Department received information of them, through a member of the corps. That intelligence was early followed with the examination of the work by a Board of Engineers; the examination itself, by a Court of Inquiry, and that Court by the convention of this. The impediment made manifest here, consists then in the secrecy which hung over the offence, and must certainly be allowed to present as powerful an obstacle as well could be interposed between culpability and its investigation. If this be resisted, it must be on the ground that the Department was in possession of means adequate to a speedier discovery, and kept them unemployed. Those means must save a little of the magical, which could enable them to discover the stumbling of an agent, removed at a distance from the spot where their obligations kept them—the reputation of the thing may be flattering, but if it must become the measure of their performance, is, by no means, a desirable distinction. Let us remember that the residuary departments of the army are provided with inspectors, but that a supervisor of fortifications is yet a desideratum in the Engineer corps.

The preceding development of facts would alone be sufficient to authorize your examination of all the points involved in the specification under view; but there are others, the single consideration of which, would, in my apprehension, equally ensure it. Were the question before you upon the admission of testimony, bearing on any act of brief disobedience, your measures would be perfectly free from hesitation; but the difficulty peculiar to this case arises, it seems, from the more than usual extent of the offence, portions of which were in progress several years past. But, gentlemen of the Court, all of its

dimensions that sketch beyond the line of limitation, are strictly connected with those that fall within it, and in common with them, go to constitute an act designated as mal-construction."

The articles of charge were then read to the Court, in order of succession, and the following portions of them ruled out:

*The specification under the 1st charge.*

*The 1st specification under the 2d charge.*

*That part of the 2d specification of the same charge, which avers a statement under date of the 26th of October, 1821.*

*The 1st specification of the 3d charge.*

*The 3d specification of the 3d charge, as far down, and inclusive of the 7th subordinate division,—when, it being 3 P. M.,*

The Court adjourned till 10 A. M. on the ensuing morning.

SEPTEMBER 9, 1824.

The Court met, pursuant to adjournment.

PRESENT:

Colonel Archer, *President.*

MEMBERS.

Maj. Stockton,  
Maj. Kearney,  
Capt. Wade,

Maj. Fanning,  
Maj. Hook,  
Capt. Ansart.

SUPERNUMERARIES.

Capt. Belton,

Lient. Gardiner.

R. L. Armstrong, *Special Judge Advocate.*

The Court cleared.

The examination of the charges continued.

Ruled out:—*The residuary part of the 3d specification of the 3d charge.*  
*The 1st specification of the 4th charge.*

Two members of the Court requested that their votes upon the measure of ruling out might appear upon the record.—Decided in the negative.

The Court resumed.

The subsequent documents were then produced in evidence, on the part of the prosecution; the admission of the accused, as to their authenticity, having previously been received. They are principally estimates of the sums necessary for the construction of the works at the Pea Patch, and are introduced in illustration of the 2d specification of the 2d charge. (See Appendix.)

Document No. 3—F.

“ “ 4—G.

“ “ 6—H.

“ “ 7—J.

“ “ 9—K.

“ “ 10—L.

“ ——— D. dated the 18th of June, 1824.

The Court cleared.

A member of the Court proposed to strike out the 3d charge.—Assented to by the Court. The Court resumed.

Capt. J. L. Smith, in continuation.

*Specification 2d, of the 4th charge.*—On or about the 9th of June, 1824, upon the re-assembling of the Court of Inquiry, upon Major Babcock, at Fort Delaware, I stated to the Court, that, during its recess, I had discovered in the depths of the foundation of the Fort, a difference between the actual construction and the plans furnished me by Maj. Babcock, it being about 5 feet in the former, and being laid down at 7 feet in the latter, and that I had communicated the fact to the Chief Engineer. Whereupon, Maj. Babcock, who was present, asserted that there was no such difference, and to prove his assertion, referred to figures in pencil, on one of the plans he had furnished me, (No. 11, second series, already in Court—vide Appendix,) which indicated dimensions in correspondence with those of the actual construction. This statement of Maj. Babcock's, being directly opposite to mine, it was manifest that one or the other of them must be false. The Court, however, had not the means of determining which, but, on the next day, a case of drawing instruments having been provided, the lines of the drawing, indicating the foundation, were tested by the scale applicable to them, and were found to be not in correspondence with the figures in pencil, but conformable to the statement I had made to the Court, the day before. This plan was furnished me as a member of the Court of Inquiry, on an application which I made to Maj. Babcock, to that effect, in consequence of knowing orders to that effect to have been addressed to him from the Chief Engineers.

*Cross examined by accused.*

Ques. By whom were the plans relating to Fort Delaware originally prepared, and when?

Ans. The first series were prepared in the Summer of 1815. The second series, I do not know when.

Ques. By whom were they furnished to Major Babcock, and at what time?

Ans. I have seen a letter from Major Babcock, acknowledging the receipt of plans from Colonel Totten (1st series.)

Ques. At the time they were furnished, were they accompanied by any special instructions, and from whom?

Ans. I do not know that they were.

Ques. Did the War Department or the Engineer Department apply to Major Babcock, previously to the Court of Inquiry, for the original plans?

Ans. Not that I know of.

Ques. Do you know, of your own knowledge, by whom any alterations in the delineative parts of the plans, either numerical or architectural, were made, and when so made?

Ans. I do not know.

Ques. When did you first see the said plans after their completion?

Ans. In 1815 I first saw a part of the *first series*. The second se-



ries, not till I received them from Major Babcock, on or about the 21st of May last.

Ques. Are the said plans in the same condition now, in their delineative and architectural parts, as they were when you first saw them?

Ans. All that I have any distinct recollection of, are.

Ques. Have you read or met with, on file in the Engineer Department or War Department, any special instructions to Major Babcock, relating to the works at Fort Delaware?

Ans. I have.

Ques. By whom were such instructions written or signed?

Ans. By Colonel Armistead, General M. Comb, and myself.

Ques. When were they dated?

Ans. I cannot tell.

Ques. By whom was the complaint against Major Babcock originally made, and when, particularly?

Ans. There was no complaint made.

Ques. Do the architectural figures in pencil upon No. 11, denote the dimensions of the architectural parts of the foundation of Fort Delaware?

Ans. The sum of the three dimensions denoted by the figures corresponds with the whole depth of the foundation in the actual construction, or nearly so.

Ques. Are the said dimensions of the said parts also denoted by figures in ink in the original plans?

Ans. I do not know.

Ques. Do the figures in ink and pencil differ numerically?

Ans. There are no figures in ink in any of the plans furnished me by Major Babcock over the lines, relating to the foundation.

Ques. Was the second series furnished Major Babcock in 1819, or at what other period?

Ans. I do not know.

Ques. Was the foundation of Fort Delaware completed before the second series of plans was furnished Major Babcock?

Ans. I do not know.

Ques. In what manner was the statement exhibitory of a want of a correspondence, referred to in the second specification of the fourth charge, made up.

Ans. From actual observation and measurement of both the plans and the construction.

Ques. Were both series of the plans furnished Major Babcock before the Court of Inquiry, and accessible to your inspection?

Ans. I have already stated that they were.

Ques. Do the arithmetical figures referred to, correspond with the delineations apparent upon the face of the first series of the plans?

Ans. In such of them as have been altered they do.

Ques. Is the actual construction of Fort Delaware delineated upon the first series of plans furnished Major Babcock?

Ans. I believe it is.

**Ques.** by the Court. You have stated that the Court of Inquiry received plans (first series) from Brooklyn, how did they get out of the possession of Major Babcock, and how long had they been out of his possession?

**Ans.** I do not know.

The evidence on the part of the prosecution having closed, and the accused not being prepared to go immediately into examination of exemplary testimony, the Court adjourned till 10 A. M. on the ensuing day.

SEPTEMBER 10th, 1824.

The Court met, pursuant to adjournment.

PRESENT,

Colonel Archer, *President*.

MEMBERS.

Major Stockton,	Major Fanning,
Major Kearney,	Major Hook,
Captain Wade,	Captain Ansart.

Capt. Belton and Lieut. Gardiner, *Supernumeraries*.

R. L. Armstrong, *Special Judge Advocate*.

The following affidavit was then read to the Court, the accused having been previously sworn to the truth of it.

Samuel Babcock being sworn, in due form of law, saith, that Col. Joseph G. Totten, and Lieut. Henry Brewerton, are material witnesses for him, for his vindication against the charges with which he is accused. He further saith, that all letters or instructions which may be on file in the Engineer Department, or War Department, written to, or furnished the accused, by either of the said Departments, relating to the construction of the works at Fort Delaware, and, particularly, such letters or instructions as are signed by Col. Walker K. Armistead, General Alexander Macomb, or Captain J. L. Smith, are necessary to his vindication against the charges with which he is accused.

The Court cleared—The Court resumed.

The Court decide that they will not delay their proceedings for the objects prayed for in the above affidavit.

The testimony, on the part of the accused, having been heard, the accused requested the indulgence of the Court, for one day, to prepare his final defence, which was accordingly granted.

The Court adjourned, to meet again on the 11th inst. at 10 A. M.

N. B. Previously to this adjournment, the letter marked M, (see Appendix,) was introduced, on the part of the accused, the prosecution consenting to receive it as authentic.

September 11th, 1824.

The Court met, pursuant to adjournment.

PRESENT,

Colonel Archer, *President*.

MEMBERS.

Major Stockton,	Major Fanning,
Major Kearney,	Major Hook,
Captain Wade,	Captain Ansart.

Capt. Belton and Lieut. Gardiner, *Supernumeraries*.

R. L. Armstrong, *Special Judge Advocate*.

The accused then being asked if he were ready to proceed, offered the following defence. (See Appendix.)

The Court cleared.

A proposition was then made by a member of the Court, to lay before the supervising authority, their reasons for ruling out those portions of the articles of charge before them, which, in the preceding pages, are recorded to be so ruled out.

It was decided in the negative.

Three members of the Court requested that their votes, upon this proposition, might appear upon the record.

It was decided in the negative.

The whole of the proceedings then having been read over to the Court, by the Judge Advocate, they commenced their deliberations on the matter before them, and pursued them till three P. M. when,

The Court adjourned till 10 A. M. on Monday, the 13th inst.

September 13th, 1824.

The Court met, pursuant to adjournment.

PRESENT.

Colonel Archer, *President*.

MEMBERS.

Major Stockton,	Major Fanning,
Major Kearney,	Major Hook,
Captain Wade,	Captain Ansart.

— — — — —, and Lieut. Gardiner, *Supernumeraries*.

R. L. Armstrong, *Special Judge Advocate*.

The Court, then, after due deliberation on the testimony adduced, find the accused, Major Samuel Babcock, to have committed the facts set forth in the 2d specification of the 2d charge, with the exception of the word "*irreconcilable*," but attach no criminality to them.

The Court further find the said accused not guilty of the 2d charge, (to wit: neglect of duty.)

The Court further find the facts in the specification second, of the 4th charge, but attach no criminality to them.

The Court further find the said accused not guilty of the 3d specification of the same charge.

The Court further find the said accused not guilty of the 4th charge, (viz: conduct unworthy an officer and a gentleman,) and do acquit him. The Court adjourned, *sine die*.

S. B. ARCHER,

*Inspector General, and President of the Court.*

R. L. ARMSTRONG,

*Special Judge Advocate.*

True copy from the original.

ADJUTANT GENERAL'S OFFICE,

*Washington, January 15th, 1825.*

CH. J. NOURSE,

*Acting Adjutant General.*

## APPENDIX.

### MAJOR BABCOCK'S DEFENCE.

*Mr. President and Gentlemen of the Court:* The Court having, on the application of the prisoner for process for his witnesses; and for time to obtain them and certain other written testimony, informed the accused that they deemed it useless for him to produce such witnesses and testimony, it only remains briefly to state the grounds of defence on which the prisoner relies. The Court, in entering upon this subject, may, without impropriety, be reminded that the original causes of complaint, with a very unimportant exception, the supposed existence of which induced the organization of the Court of Inquiry, are no longer before the Court, having been expunged or abandoned by the prosecution. The charge the Court are now asked to try the accused upon, is a matter arising entirely at the time, and upon the occasion of the inquiry, and then was the subject matter of conversation or argument, between the accused and the witness. But though the charges and numerous specifications under them, have, from day to day, as the trial progressed, dwindled away, till reduced in number to almost nothing, yet, in the bearing and import of the fourth charge, and the specifications under it, which yet remain upon the records of this Court, the accused cannot but feel the deepest interest. Willing as he is, without an allegation or a witness, to submit his capacity, his education, his improvements of the opportunities he has enjoyed, and the measure of his successful acquirements and skill, to the candor and judgment of his intelligent brethren, he cannot but feel the most intense and anxious solicitude, when his personal honor is involved by an imputation of intentional falsehood and deceit. In meeting this charge, the accused relied with confidence upon the testimony of the witnesses whose names he furnished to the Court. They would have proved him innocent of any shadow of concealment. The Court from what is already before them, have decided that it was useless in the prisoner to obtain further testimony; and the accused rejoices in this plain indication that this upright tribunal see no evidence, on the part of the prosecution, of force sufficient to oblige the

accused to answer so foul a charge. A brief view of the facts in evidence, will indicate how little foundation there exists for the accusation. The accused submits that a true view of his duties and consequent responsibilities, in the construction of Fort Delaware, can only be derived from the orders and instructions given to him by those whose orders and instructions it was his duty to obey. One letter of this description has been produced by the prosecution. It is dated New York, May 15th, 1815, and written by Gen. Swift, to the accused, and contains the following remarkable words:—"You will not construct any works that do not, on examining the plans, meet your approbation. unless you receive written orders to construct a particular work from the Secretary of War, the Commanding General, or myself." It would be difficult to select words or adopt language expressive of a wider range of opinion and discretion, or to be guilty of greater injustice than making a crime of the exercise of such discretion. Certainly every candid mind will at once perceive the general discretion in such expressions.

In the year 1816, Colonel Totten handed the accused certain plans, but not accompanied by any special or particular instructions; and, coupling those plans with the letter of General Swift, just now referred to, the accused did presume that he was to judge of the plans, and not to construct the work unless the plans met his approbation. That such was the view taken by Colonel Totten of the control and discretion with which the accused was invested, it is in proof before the Court, that Colonel Totten addressed to the accused a letter, dated April 22, 1816, in which the very change in the foundation, which has been the great cause of complaint, is directly proposed and directed, or advised. If the letter is viewed in the light of an order, unquestionably Colonel Totten had a right to give it, and the duty of obedience follows of course; if as advice, then the accused was considered as having a right, under his discretionary power, to receive and adopt it as scientific advice. But not only so: Colonel Totten cites, in support of his opinion, great names in science; and, for acting under the authority of such names, it would be preposterous indeed to censure the accused, or credit as probable, that he could for a moment intend to conceal that he had so acted, instead of taking credit to himself for adopting the improvement. From this letter of Colonel Totten arose what are called the alterations on the plans. They were now made to delineate the real construction of the work, according to the improvement suggested. If the accused was right, under the direction of Colonel Totten, or in the exercise of his own discretion, in changing the plan of the foundation, no possible blame can attach to him for making such variations on the plans, which fairly exposed what he had done. Still less can it be supposed that he intended concealment of such variation, when it is proved by the prosecution, that the figures indicating the change were put on the plans, on which were left, untouched, the lines and figures delineating the plan from which he varied. The direct evidence of the entire absense of any design of concealment does not stop here. It is proved by a letter laying on the table of the



Court, that, in October 1818, when the foundation was progressing, an inspection of the works was solicited by the accused; and, in March 1819, as appears by another letter, also before the Court, when the foundation was completed, and the masonry about to be commenced, a similar request for inspection was anxiously repeated. Neither request was attended to; and it would be hard indeed on the accused, when years had elapsed, and the subject-matter of the charge, Col. Totten's letter, and the reason for the variation, were but indistinctly remembered, amidst the mass of much later details in relation to the work, which were enough to occupy, almost to the exclusion of circumstances of so old a date, the mind of any man, how extensive soever his capacity, to constitute an offence out of the variation, and, more than all, to attribute a designed concealment to acts, in the progress of which inspections were requested; and all this founded on a conversation more than six years after the act, in which, if any misstatement was made, a very small stretch of charity might admit it to arise from any other than the vile motive imputed by the charge. Instead of concealment, the accused avers, that he made every effort to expose his work, believing, as he has always done, that there was no ground of censure in it. He has mentioned, in proof of this, the inspections solicited. He would refer himself further, to the visits of the officers of the Engineer Department, high in rank and scientific acquirements, which were so frequently made. To attribute such visits to mere idle passing curiosity, or to assert that they could be productive of no information to the Department, is a reflection on the character and intelligence of these officers. The accused, to rebut this notion of concealment, refers with confidence to the evidence in the case, of his having given to Colonel Totten the most direct information of the variation. In August, 1819, the foundation being then completed, the accused returned the plans to Colonel Totten, having marked on the alleged variations, indicating the then actual construction, according to Colonel Totten's own instruction and advice. The object of so returning the plans was, and could only be, to enable Colonel Totten, in the further plans, to adapt the work yet to be erected to the variation made in the actual construction. In consequence of returning the old plans, for the reasons stated, a new series were prepared, and, in October, 1819, furnished to the accused by Colonel Totten. The foundation was now complete; its construction was according to Col. Totten's own plan; it was marked, as made, on the plans returned to Colonel Totten; those plans were, for two months at least, in that gentleman's hands. With the whole matter of the foundation then fresh on his mind, he must have observed that his own variation in the foundation was adopted; and, most unquestionably, the accused was justified in believing that he had done what was right, and that every part of his conduct was open, known, and approved. The Court will please to recollect, that all parts of the new series, but the foundation, were figured. This could only be accounted for by attributing the omission to the fact of that part being complete, and, therefore, that no necessity existed for indicating any dimensions as to it. The accused was

fully impressed with the belief, that, as he had laid down, and pointed out, the actual construction upon the original plans, and as the new series was made out from them, the foundation in the new series was according to actual construction. A contrary supposition could never have entered his mind; and, more especially, as this part of the work was finished, he had withdrawn his attention from it, and there were, additionally, no figures placed upon it, by which his notice might have been drawn. In fact, there is no alteration of the plan; all its lines remained unobliterated, undefaced. There are added delineations to exhibit the actual construction of the work. These delineations are true to the fact, and, put where they are, and forwarded to Colonel Totten, as they are proved to have been, prove, beyond all doubt, that the accused himself furnished the best and most direct information, of the change which had been made in the construction of the foundation. It was an illustration—not a deception. The figures which have been spoken of, on the part of the prosecution, as indicative of being used for the purpose of deception, were not made by the accused, or by his direction, but by Lieutenant Brewerton, (whom the accused was desirous to bring forward as a witness, but whose attendance the Court thinks useless,) and made by that gentleman for a calculation of his own. Whatever, then, the witness for the prosecution may have understood the accused to say, it is evident that the whole amount of the case before the Court is, that is one of mistake and misapprehension of words and arguments used in conversation, rather than of falsehood, deception, and fraud. The accused was not understood; he may not have had the whole subject present to his mind, and might have been himself mistaken at the moment, or explained himself so imperfectly as to be mistaken by others. The whole history of the case, the very nature of the facts developed to this Court, forbid the presumption of an intention to deceive and conceal. It might with great fairness be added, by way of argument, to shew the improbability and unreasonableness of such a course of conduct as is imputed to the accused, what supposable motive could the accused have to act, as he is charged with acting, by the prosecution? Was it his intention to vary the construction in a pecuniary light, or to diminish his duties and labor in any way? How could it benefit him? What motive could have prompted him to follow Colonel Totten's plan, other than respect for authority and his own zeal for the service? When adopted, what was there in his conduct which could excite such apprehension and alarm, as to suggest to him the necessity of concealment? If such, however, was his determination, was it reasonable, in furtherance of his designed concealment, that the accused called for two inspections, and gave into Colonel Totten's hands the best evidence of what he had altered? Concealment and deception cannot be predicated of conduct such as the accused has shown his to be, unless he be also supposed destitute, in a very uncommon degree, of that common sense which is the common property of men. Upon the whole, Colonel Totten's letter was as much a part of the plans, as any other paper; and the accused trusts that, in adopting it, the Court will consider his conduct correct.

"This plan of Colonel Totten's the figures truly represent; and it inevitably follows, as a consequence, that there was no deception, nor could there be any intention to deceive.

As to inaccurate estimates of intended work, the accused cannot pretend to throw any other light on that subject, than will be brought to its consideration by this intelligent Court. An error in judgment, as to existing facts, is not of very seldom occurrence; but calculations as to what is yet to happen, where the data are necessarily uncertain, are still more generally wide of the mark, because such calculations are, of course, hypothetical, and liable to disturbance from causes which could not be foreseen. A greater part of the time, the whole burden of this great work rested upon the accused. At another, domestic calamity and severe illness afflicted him. But, it surely cannot be necessary to enter, on such a subject, into further details. Nicety of calculation, as to expense, could hardly have been expected in a work of such magnitude, liable to so many circumstances occurring that it was impossible to anticipate.

The case of the accused is now before this Honorable Court. He respectfully submits it, so far as he is interested, to their candor and their honor, firmly relying on both, and trusting, by their exercise, to a speedy restoration to that character and standing, which have never been sullied by any intentional departure from the path of truth and duty.

SAMUEL BABCOCK, *Maj. Eng.*

True copy from the original.

ADJUTANT GENERAL'S OFFICE,

Washington, January 15, 1825.

CHAS. J. NOURSE, *Acting Adj. Gen.*

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ENGINEER DEPARTMENT,

Washington, November 19, 1822.

SIR: The attention of the Department has been, for some days, exclusively engaged in the preparation of a report, and a general estimate, for the War Department, and therefore could not be earlier given to the consideration of the estimate, report and, drawing, that accompanied your letter of the 11th instant.

The estimate being for the completion of Fort Delaware, is greater than that submitted by you last year for the accomplishment of the same object, notwithstanding that funds have been applied to the fulfilment of the latter to the extent of about one-third of its amount. It is hoped you will be able to explain the apparent discrepancy in a satisfactory manner. Indeed, your omission to furnish such an explanation with the estimate, is rather surprising, considering that you are possessed of minute information respecting the op-

position of Congress to the estimate of last year, and the difficulty of overcoming it.

You will make your explanation in the tabular form, with remarks; the table to exhibit the estimated quantity and cost of each item, of which the estimate of last year was constituted; the same details with respect to disbursements of this year, up to the end of last month, and also with respect to the balances resulting from the deduction of the latter from the former. These balances will show the quantity and cost of the items of which your estimate for this year should have been constituted; and being compared with the quantity and cost of the items constituting your estimate to be explained, will show exactly and in detail the differences between them. The explanation of those differences is what is now required. Another point with respect to your estimate, which requires explanation, is, the precise period of time at which its operation was contemplated to be commenced, and whether it was considered to be a dependent of the existing appropriation, or was predicated upon the application to its fulfilment of the portion thereof which has not yet been advanced to you, or of that advanced, but remaining in your hands unexpended, or both.

It is thought, from a transient examination of your report and drawing, that they afford the information expected from them.

I have the honor to be, sir,

Very respectfully, your obedient servant,

By order.

J. L. SMITH,

*Capt. Corps of Engineers.*

Major BABCOCK,

*Corps of Engineers, New Castle, Delaware.*

True copy from the original.

CHARLES J. NOURSE,

*Acting Adj. Gen.*

*Adjutant General's Office,*

*Washington, January 15, 1825.*

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ENGINEER DEPARTMENT,

*Washington, January 24, 1824.*

SIR: I have received your letter of the 22d inst. covering a table, exhibiting the number and position of the permanent fortifications within the district of Delaware, showing the state of the work, agreeably to a resolution of Congress of the United States, of — March, 1823; and, upon examining that report, it is with inexpressible mortification I find that, notwithstanding your estimate for completing the work at Fort Delaware, and the assurance you gave me while I last visited you at New Castle, that the sums appropri-

ated were sufficient to complete the Fort, and that there would be a surplus of at least \$10,000; that we now find that a further sum of \$20,539 69 will be necessary to complete the works. On the assurance which you gave me, that the appropriation was more than sufficient, I reported to the Secretary that Fort Delaware would be completed with the appropriations already made. On this the Secretary reported the state of that Fort to the President, who made to the nation a similar exposé of the situation of Fort Delaware. Under these circumstances, it will be out of the question to think of asking for further appropriations for Fort Delaware.

You will as early as practicable make a detailed report to this Department, of the causes which give rise to this difference, in order that the Department may be enabled to judge of the course proper to be pursued.

I am, sir, respectfully,

Your most obedient servant,

ALEX. MACOMB,

*Maj. General, Chief Engineer.*

To Major BARCOCK,

*Corps of Engineers, New Castle, Delaware.*

True copy from the original.

CHARLES J. NOURSE,

*Acting Adj. Gen.*

*Adjutant General's Office,*

*Washington, January 18, 1825.*

B.

NEW YORK, *May 15, 1815.*

SIR: You will repair to Philadelphia, and report yourself to the Commanding General of District No. 4, as Engineer for the District. You will examine the Pea Patch, and the channels adjacent, and construct a plan for a permanent work, to be erected on that site, and report to me the plan, with an estimate of cost, as soon as may be.

You will not construct any works that do not, on examining the plans, meet your approbation, unless you receive written orders to construct a particular work from the Secretary of War, the Commanding General, or myself.

Lieutenant J. Craig will join you for duty, an amiable, industrious, and intelligent youth from the Academy.

You will examine minutely Fort Mifflin, and report to me its situation, with such repairs and alterations as may be requisite to place the work in a permanent state of defence. Are any other works



on the Delaware required? Is Fort Mifflin too large or too small; and is it of the requisite form?

Your respectful, humble servant,  
J. G. SWIFT, *B. G.*

Capt. BABCOCK,  
*United States' Engineers.*

True copy from the original.

CHARLES J. NOURSE,  
*Acting Adj. Gen.*

*Adjutant General's Office,*  
*Washington, January 15, 1825.*

C.

NEWCASTLE, October 1, 1818.

SIR: I have the honor to report to you that the work at the Pea Patch continues to progress as when I wrote last. Some of the grillage is received, and a number of men are employed in cutting off the heads of the piles at the level of low water, and laying the grillage, which is fastened with wooden pins. The foundation, as it is, seems to me sufficient; but it would be very agreeable to have it inspected by the Board of Fortifications, before we commence with masonry, which will be early in the Spring: every arrangement will have been previously made. The natural level of the ground of the work is fifteen inches below high water mark. I have used the earth taken from the piling, to raise it rather above high water. The number of men employed, of all kinds, is seventy.

With great respect, I am, sir,  
Your obedient servant,

S. BABCOCK.

*Captain Engineers.*

Brig. Gen. J. G. SWIFT,  
*Chief Engineer U. S.*

True copy from the original.

ADJUTANT GENERAL'S OFFICE,  
*Washington, January 15, 1825.*

CHAS. J. NOURSE,  
*Act'g Adjutant General.*

## D.

*Statement showing the nature, quantities, and cost, of the several kinds of materials, and workmanship, &c. necessary to complete Fort Delaware; also, of the quantities and value of the materials on hand, and the amount of funds, after defraying the expenses of the work, up to the 1st of June, including the balance of the last appropriation not yet drawn from the Treasury.*

## MATERIALS.

78,600 feet 3 inch plank, for 2d tier of platforms, at 22 cts.	1,729	20
137,850 feet scantling, for sleepers, at 22 cts.	3,032	70
*16,000 feet boards,	400	00
*40,000 shingles, at 20 cts.	800	00
4,500 lbs. spikes,	360	00
4,000 lbs. nails,	320	00
*130 pairs hinges, for shutters,	97	50
*1,600 laths, for shingling,	128	00
32,000 feet scantling, for a gallery;	800	00
5,000 feet 1½ inch plank,	125	00
*300 lbs. sheet lead,	24	00
*80 leaden spouts,	40	00
*80 tin leaders,	768	00
350 bushels lime, at 35 cts.	122	50
70 tons sand,	35	00
*Stuff for gate, 1000 ft.	30	00
*Stuff for bridge, 7000 ft.	175	00
Do. Do. 300 lbs. spikes,	24	00
Painters' work,	1,000	00
*Plastering,	200	00
Smiths' work, including screw bolts for girders,	1,000	00
*Carpenters' work of roofing,	2,000	00
Carpenters' work of galleries, casemates, 2d tier, platforms, magazines, &c.	5,000	00
*Carpenters' work for bridge,	200	00
*Do. Do. for gate,	100	00
	\$20,610	90

## MATERIALS ON HAND, June 5, 1824.

Pine plank, 3 inch, 67,500 ft. at 22 cts.	\$1,485	00
Pine scantling, 46,800 ft. at 22 cts.	1,029	60
Pine boards, 5,000 ft. at 20 cts.	100	00
Cedar shingles, 36,000 ft. at 20 cts.	720	00
Laths, 800, at 8 cts.	64	00
Coal, 15 bushels, at 40 cts.	4	00
Roman cement, 43 casks, at \$9,	387	00

Cutting stone, 350 ft. at 25 cts.	-	-	-	87 50
Flagging stone, 900 ft. at 20 cts.	-	-	-	180 00
Rough stone, 60 perches, at 5 cts.	-	-	-	300 00
				<hr/>
				\$4,357 10

S. BABCOCK,  
*Major Engineers.*

Amount due carpenters and laborers for May,	-	\$ 938 79
Do. masons, for cut stone,	-	2,500 00
Do. masons for laying bricks,	-	240 00
Do. masons for laying stone,	-	307 50
Do. for lumber for gutters of roof of Fort,	-	692 00
Do. for boards, -	-	250 00
Do. for bricks, -	-	256 00
Do. for sand, -	-	71 00
Do. for iron and coals, -	-	183 28
Do. for forage, -	-	20 80
Do. for stationery	-	5 00
Do. for nails, &c.	-	365 50
Do. for oil and paint,	-	36 89
Do. for painting and glazing,	-	40 00
Do. for glass,	-	24 00
Do. for plasterer's work	-	200 00
		<hr/>
		\$6,130 76

Amount of funds	-	\$6,588 77
Amount pledged	-	6,130 76

Balance,	\$ 458 01
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Since the last estimate was made, it has been found necessary to enlarge the plan of the roof, to make it more perfect; and a number of items have been thought of, which did not present themselves before. The carpenters' work also proves, by experience, to be much more expensive than was anticipated.

The items marked with stars, are most necessary.

S. BABCOCK, *Maj. Eng.*

True copy, from the original.

ADJUTANT GENERAL'S OFFICE,

Washington, January 15, 1825.

C. J. NOURSE, *Acting Adj. Gen.*

E.

NEW CASTLE, 20th March, 1819.

SIR: I have the honor to transmit to you the copy of a contract for lumber. I take this opportunity to state, that the foundation of the work at the Pea Patch is nearly completed; and that, as soon as the weather permits, we shall commence with the mason work, previously to which I hope the Board of Fortifications will visit the Island and inspect the work as far as it is done.

With great respect, sir, your obedient servant,

S. BABCOCK,  
*Capt. Engineers.*

To Col. W. K. ARMISTEAD,  
*Chief of Corps of Engineers.*

True copy from the original.

ADJUTANT GENERAL'S OFFICE, }  
*Washington, January 15th, 1825.*

CHS. J. NOURSE,  
*Act. Adj. General.*

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No. 3—F.

NEW CASTLE, 26th Oct. 1821.

SIR: Herewith you will receive an estimate of the amount of funds necessary to complete Fort Delaware; also, an estimate of the least amount necessary to carry on the work with advantage the season next ensuing.

With great respect, I am, sir, your obedient servant,

S. BABCOCK,  
*Maj. Engineers.*

P. S. I have the honor to acknowledge the receipt of your order of the 22d inst.

B.

Maj. Gen. MACOMB,  
*Chief Engineer.*

*ESTIMATE of the smallest amount of funds necessary to prosecute the work at Fort Delaware with advantage, during the year 1821.*

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5,000 perch pier stone,	-	-	-	65 cts.	-	\$3,250 00
4,460 bushels lime,	-	-	-	33	-	1,471 80
820 M. bricks,	-	-	-	8 00	-	6,560 00
1000 tons sand,	-	-	-	50	-	500 00
1000 perches range stone,	-	-	-	2 50	-	2,500 00
200 casks Roman cement,	-	-	-	9 00	-	1,800 00
Lumber, nails, &c.	-	-	-	-	-	1,000 00
Contingencies,	-	-	-	-	-	1,000 00
Resetting centres,	-	-	-	-	-	750 00
Labor 8 months,	-	-	-	4 00	-	3,200 00
Laying 1000 perch range stone	-	-	-	1 50	-	1,500 00
Do. 820 M. bricks,	-	-	-	3 00	-	2,460 00
Cutting 20,000 feet stone,	-	-	-	25	-	5,000 00
500 perches building stone,	-	-	-	1 00	-	500 00
Laying,	-	-	-	75	-	375 00

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\$31,866 80

*ESTIMATE of the amount of funds necessary to complete Fort Delaware.*

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10 M. perches pier stone to protect and preserve the N.					
W. part of the Island,	-	-	-		\$6,500 00
For Fort Delaware, 5 M. perches building					
stone,	-	-	-	at \$1 00	5,000 00
1 M perches range stone,	-	-	-	2 50	2,500 00
820 M bricks,	-	-	-	8 00	6,560 00
8,460 bushels lime,	-	-	-	33	2,791 80
2,000 tons sand,	-	-	-	50	1,000 00
200 casks Roman cement,	-	-	-	9 00	1,800 00
3,000 tons gravel, to level parade,	-	-	-	1 00	3,000 00
Iron railing, upper platform, 90,000 lbs.				10	9,000 00
Copper hinges, bolts, nails, &c. for 5 maga-					
zines,	-	-	-	25	125 00

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\$38,276 80



## WORKMANSHIP.

Laying 5 M. perches building stone	-	75	\$3,750 00
Do. 1 M. " range do	-	1 50	1,500 00
Do. 820 M. bricks,	-	3 00	2,460 00
Resetting centres, 5 sets,	-	1 50	750 00
Working girders, joists, floor, and balustrade of 2d tier,	-	-	3,730 00
Working girders, joists, floor and balustrade of upper tier,	-	-	
			2,745 00
Carpenters' work of 5 magazines,	-	-	225 00
Do " gateway and bridge,	-	-	110 00
Do " embrasure shutters, 146,	1 50	-	217 00
Do " windows of men's barracks	-	-	49 50
Labor 8 months, at \$400, \$3,200; cutting 62,500 feet stone, at 25 cts. \$15,622 50,	-	-	18,822 50

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\$34,359 00

Two buildings for officers' quarters, 45 by 20 feet, and 2 stories high.

Foundation, piling, grillage and plank,	-	-	\$582 00
Walls—600 perches stone,	-	1 00	600 00
600 bushels lime,	-	33	198 00
Lumber for do. each	-	5 75	1,150 00
Laying 600 perches stone,	-	75	450 00
Plastering and materials, each	-	1 60	320 00
Painting, glazing, &c.	-	-	170 00
Ironmongery—locks, hinges, screws, nails, &c. &c.	-	-	194 00
Work and materials of 2 privies,	-	-	100 00
Contingencies,	-	-	1500 00

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\$5,264 00

Materials,	-	-	\$38,276 80
Workmanship,	-	-	34,359 00
Quarters, &c.	-	-	5,264 00

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Aggregate, \$77,899 80

True copy from the original.

ADJUTANT GENERAL'S OFFICE,

Washington, January 15th, 1825.

CHS. J. NOURSE,  
Act. Adj. Gen.

No. 4—G.

NEW CASTLE, 11th November, 1822.

SIR: Herewith you will receive my report of the present state of Fort Delaware, and an estimate of the probable expense of completing the same, accompanied with a plan and sections.

With great respect, I am, sir,  
Your obedient servant,

S. BABCOCK, *Maj. Engineers.*

Maj. Gen. ALEX. MACOMB,  
*Chief Engineer.*

## REPORT.

In obedience to your order, I have the honor to report on the present state of Fort Delaware:

During the present year, 2,273 perches of stone have been laid in wall, five casemate arches, and two magazine arches, have been turned, eight buttresses have been made. Thinking it necessary not to delay the application of a remedy to those arches whose piers seemed insufficient, I had completed the buttresses abovementioned, before the plan of the Board of Engineers arrived. With all deference to the superior professional skill of the Board, I cannot but think that the plan, already partly carried into effect, is the most eligible. Experience proves that every mass of fresh masonry, (however well made) unless every stone composing it is cut with a chisel, will settle within itself, more or less. Supposing the foundations to be perfect, therefore, the interior stone tresses or braces, prescribed by the Board, would loosen themselves from the body of the pier by the settling, and thereby act merely as a weight, and consequently become useless; besides the attempt to cut out portions of the piers now existing, in order to admit the stone truss, could only be made at the imminent risque of destroying the whole pier, and, of course, the series of arches comprising a face, the stones being flinty, of irregular shape; and the cutting out of a part of *one* would in effect be to undermine the pier. Further, the expense of cutting the stone alone of one buttress and its corresponding pier, according to the plan of the Board, would amount to \$331. Now, the taking down and rebuilding of one of the arches would cost as follows:

Taking down and cleaning 43,000 brick, \$1 per 1000,	\$43
Relaying do. s do.	129
130 bushels lime, at 35 cents per bushel,	- - 45 50
20 tons sand, at 50 cents per ton,	- - 10
Waste of bricks 3000, at \$8 per 1000,	- - 24
	<hr/>
	\$251 50

Therefore, it would be cheaper to take down the arches in fault, enlarge their piers, and rebuild them. That this plan would be effectual cannot be doubted, when we take into view the arches contiguous, which, with a foundation precisely similar, are perfect—the difference between them is, that the one have larger piers than the others; the buttresses already made, however, appear to fulfil their destination, and I strongly hope that when they are inspected, it will be decided, that those to be erected, be made in the same manner.

There remains to be done, to complete the work, 16 buttresses, 17 casemated arches, the wall to be raised to its full height, two buildings for officers' quarters, platforms, railings, galleries, bridge, cisterns, gravelling parade, &c. &c. By covering the casemates with some *clean* and *hard* substance, and by addition of gutters, a copious supply of pure water may be obtained for the use of the garrison. I would recommend to lay slates in water-proof cement. The original plan contemplated filling up between the arches with earth; this, from its tendency to keep the arches continually damp, as well as for the reason above stated, I think would be better omitted, at least in time of peace.

I beg leave to add, on the subject of cracks in the arches, that, in the profile sent me by the Engineer Department, last Summer, the crack is represented as extending quite *through* the arch, and as *widest* at the *top*. This is a great mistake. The fact is, no crack or flaw of any kind was ever discovered on the superior surface of the arches. Those which exist are widest at *bottom*, and appear not to be deep.

It is deemed advisable to secure the upper part of the Island, which has never been embanked, by a sea wall of pier stone, thrown in in such a manner as to give a sufficient slope to ensure solidity. This has been tried on a small scale, and found to answer. Its only expense is, the cost of the stone. A tract of from 8 to 10 acres would be gained and secured. I have every reason to be satisfied with the wharfing made to secure the Island from the surf. Each tide deposits a quantity of mud in its rear, which, in a year or two, will give a number of acres of soil in addition. On the subject of cultivation, permit me to add, that, during the present season there has been raised a sufficiency of oats and hay to keep the public cattle until the next harvest.

The plan and profiles herewith, will, I believe, give very correct ideas of the present state of the work.

All which is respectfully submitted.

S. BABCOCK, *Maj. Engineers.*

Maj. Gen. ALEX. MACOMB,

*Chief Engineer U. S.*

*Estimate of Materials, Labor, and Workmanship, to complete Fort Delaware, and to secure the Island against the winds and tides.*

2512 perches building stone	-	-	1 00	\$ 2,512
1186 " range do.	-	-	2 00	2,372
260,000 bricks,	-	-	8 00	2,080
9000 bushels lime,	-	-	35	3,150
1000 tons sand,	-	-	50	500
300 casks water-proof cement,	-	-	9 00	2,700
3000 tons gravel for parade,	-	-	1 00	3,000
9000 lbs. cast iron railing, (upper platform,)	-	-	10	9,000
Copper hinges, bolts, nails &c. for magazines,	-	-	-	100
Laying 5942 perches building stone,	-	-	75	4,456
" 1380 " range do.	-	-	-	2,070
" 705,000 bricks,	-	-	3 00	2115
Cutting 50,000 sup. feet stone,	-	-	25	12,500
Carpenters work, lower platforms, laying } including trus-				
platforms, making galleries and railing, }				3730
Do. do. upper do.			do.	2,745
Carpenters work, five magazines \$45 each,	-	-	-	225
Do. do. gateway and bridge,	-	-	-	110
Do. do. embrasure shutters,	-	-	-	217
Do. do. do. windows,	-	-	-	50
Do. do. resetting centers,	-	-	-	600
Two buildings for officers quarters, each 45 by 20 feet, }				
and two stories: foundation, piling, and grillage }				582
Walls, 600 perches stone, \$1	-	-	-	600
Do. 600 bushels lime, 35 cts.	-	-	-	210
Lumber for do.	-	-	-	1,150
Carpenters work,	-	-	-	2,100
Masons do. laying 600 perches stone, 75 cts.	-	-	-	450
Plastering,	-	-	-	320
Painting and glazing,	-	-	-	170
Ironmongery: locks, bolts, screws, nails, hinges, &c.	-	-	-	194
Two privies,	-	-	-	100
Labor of ten men ten months,	-	-	-	2,500
71,500 feet plank, for platforms, \$20	-	-	-	1430
189,700 feet scantling for do. 17	-	-	-	3224
177 piles, \$3,	-	-	-	531
37,280 slates, (and laying of do.) for covering arches and buildings.	-	-	-	4,473
To finish and put in order well,	-	-	-	100
Four cisterns, \$75 each,	-	-	-	300
Plumber's bill for gutters, &c. materials and workmanship,	-	-	-	500

For sea walls, 9,000 perches, pier stone, 75 cts.	6,750
For repairing wharfing, - - - - -	100
Contingencies, - - - - -	1,500
	<hr/>
Total amount,	<u>\$81,516</u>

True copy from the original.

CHARLES J. NOURSE, *Act. Adj. Gen.*

*Adjutant General's Office,*

*Washington, Jan'y 15th, 1825.*

No. 6.—H.

NEW CASTLE, *November 25th, 1822.*

SIR: The unexpected magnitude of the estimate presented to complete Fort Delaware, is accounted for as follows: first, by the addition to the plan during the present year, of 30 buttresses; by the insertion, by mistake, of the items "foundation, walls, lime, and mason work of quarters, the same being included in some of the preceding items; by addition of plank and scantling, slate, to finish well, cisterns, plumber's bill, and repairs of wharfing, which were omitted in the former estimate. The work being kept a year longer in hand for want of adequate funds, the expenses for labor and contingencies is necessarily increased. The same may be said of carpentry and smithery, as well as the additional expense of covering in the work from the weather, which consumes a great deal of scantling and boards. The particular mode of securing the casemates from wet, has not yet been decided on. I am of opinion, however, that they can be preserved from dampness, by a covering of water-proof cement, without slate. I have therefore made an addition to that item; and a platform of wood over it may be payed and caulked in the same manner as a ship's deck; as it has a slope of six inches, the rain water might be conveyed by gutters to the cisterns. As to balance, my last quarter's accounts, and last requisition for funds, shew how that is. The estimate commences with the next year, supposing that the balance of this year, not received, will be expended as has been proposed, as agreed to. I send you a *new* estimate, in which I have suppressed certain items which are not essentially necessary for the work, viz. gravel for parade, iron railing (which may very well be replaced with a wooden one, vastly cheaper) slates, pier stone for sea wall, &c. as you will see, by comparing the two estimates; by which means, in spite of the additions, the amount may be kept within bounds, and without injury to the work. As to the minimum estimate, I have no alteration to make. In adding up the items of last years' estimate, I find the amount is greater than it should be; whether this arises from



some mistake in copying, or by an error in adding the original, you will be able to judge.

With great respect, I am, Sir,  
Your obedient servant,

S. BABCOCK, *Maj. Eng.*

Maj. Gen. MACOME.

*Chief Engineer U. S.*

**Table** exhibiting the number and position of the permanent Fortifications within the District of Delaware, shewing the State of the Work, agreeably to a Resolution of the Congress of the United States, of March, 1823.

Name or designation of the Fortification.	POSITION.		PERIOD.		MAGNITUDE.	COST OF WORKS ERECTING.		ARMAMENT.												GARRISON.	
	What Frontier.	What State.	When begun.	When to be finished.	Indicated by the length of the line along the crest of the parapet.	Of construction up to 30th Sept. 1823.	Contemplated for completion.	COST		CANNON.					MORTARS.			HOWITZERS.		Requisite for war.	Requisite for peace.
								Of furnishing complete for a war establishment.	Of furnishing it for a peace establishment.	ps	ps	ps	ps	ps	In	In	In	In	In		
Fort Delaware	Delaware Bay	Delaware	1817	1824	1,899 feet	* \$369,472 97	\$30,875 32	\$150,000	\$15,000	70	70	84			5	5		2	2	1500 men	100 men

\* NOTE.—In the cost of construction is included the cost of wharfing, to a large extent, to secure the Pea Patch from the action of the waves; and, as the same hands were employed on the fortifications and embankments, the different items are inseparably connected; and it is impossible to say, with exactness, the amount of wharfing and embanking. I estimate it at not less than \$50,000.

True copy, from the original.

S. BABCOCK, *Maj. Engineers.*

ADJUTANT GENERAL'S OFFICE,

WASHINGTON, 15th January, 1825.

C. J. NOURSE, *Acting Adj. Gen.*



the estimate for 1823, and to finish the Work.

No.		Dollars.		Dollars.		Dollars.
1	10,000 perches pier stone, - - - 65	6,500 00	Purchased in 1822, up to 31st Oct. 721 perch at 75	540 37	1	Difference 9,389 perch at 75 - - - 7,041 75
2	5,000 do. building do. - - - 1 00	5,000 00	Do. do. do. 3,587 do. 1 00 — 71 72	3,587 50	2	Do. 1,412½ do. 1 00 — 1,010 40
3	1,000 do. range do. - - - 2 50	2,500 00	Do. do. do. 882½ do. 2 50	2,206 25	3	Do. 117½ do. 2 00 - - - 235 00
4	820,000 bricks - - - - - 8 00	6,560 00	Do. do. do. 456,550 do. 8 00	3,652 40	4	Do. 363,450 do. 8 00 * 58 75
5	8,460 bushels lime - - - - - 33	2,791 80	Do. do. do. 3,153 do. 35	1,103 60	5	Do. 5,307 do. 35 - - - 1,857 45
6	2,000 tons sand - - - - - 50	1,000 00	Do. do. do. 651 do. 50 — 63 11	325 50	6	Do. 1,549 do. 50 — 106 14
7	200 casks Roman cement - - - 9 00	1,800 00			7	Do. 200 do. 9 00 - - - 1,800 00
8	3,000 tons gravel - - - - - 1 00	3,000 00			8	Do. 3,000 do. 1 00 - - - 3,000 00
9	90,000 lb. iron railing - - - - 10	9,000 00			9	Do. 90,000 do. 10 - - - 9,000 00
10	Copper hinges, bolts, nails, &c. for magazines - - - - -	100 00	* 25		10	- - - - - 100 00
11	Laying 5,000 perches building stone, at - - - 75	3,750 00	Laid do. do. 2,273 do. 75	1,704 75	11	Do. 2,727 do. 75 - - - 2,045 25
12	Do. 1,000 do. range do. - - - 1 50	1,500 00	Do. do. do. 870 do. 1 50	1,305 00	12	Do. 130 do. 1 50 - - - 195 00
13	Do. 820,000 bricks - - - - - 3 00	2,460 00	Do. do. do. 295,000 do. 3 00	879 00	13	Do. 527,000 do. 3 00 - - - 1,581 00
14	Carpenter's work, lower platforms - - - - -	3,730 00	Centering and covering in work - - - - -	912 52	14	
15	Do. do. upper do. - - - - -	2,745 00			15	
16	Do. do. magazines - - - - -	225 00			16	
17	Do. do. gateway and bridge - - - - -	110 00			17	- - - - - 400
18	Do. do. embrasure shutters - - - - -	217 00			18	7,443 98
19	Do. do. do. windows - - - - -	49 50			19	
20	Do. do. resetting centres - - - - -	880 00	— 130		20	
21	Labor of 15 men 8 months - - - - -	3,200 00	Labor 10 months - - - - -	3,107 00	21	
22	Cutting 62,500 sup. ft. stone at - - - 25	15,622 50	Stone cutting, 5,686 feet at 25 - - - - -	1,421 50	22	56,814 feet at 25 — 2 50
	Two buildings for officers' quarters, each 45 by 20, 2 stories					14,203 50
23	Foundation, piles, grillage, and plank - - - - -	582 00	For foundation of buttresses, 10,801 — 560 82	1,142 82	23	
24	Walls, 600 perches stone at - - - - - 1 00	600 00			24	
25	Do. 600 bushels lime at - - - - - 33	198 00			25	
26	Lumber for quarters - - - - -	1,150 00	Boards and scantling for centres and covering - - - - -	567 80	26	
27	Carpenters' bill, do. - - - - -	2,100 00			27	— 1 00
28	Plastering - - - - -	320 00			28	583 20
29	Painting and glazing - - - - -	170 00			29	2,100 00
30	Locks, screws, bolts, nails, hinges, &c. - - - - -	194 00			30	321 00
31	Laying 600 perches stone, at - - - - - 75	450 00			31	170 00
32	2 privies - - - - -	100 00			32	194 09
33	Contingencies - - - - -	1,500 00			33	450 00
	— 130		Forage \$ 194 50, iron and coals \$65 07, stationery \$8, } — 358 75	300 00		100 00
	— 2,100	\$80,104 80	ox yokes \$4, oars \$15, smithing \$69 68, }	358 75		1,200 00
	— 2,230		— 71 72	23,114 56		— 1,010 40
	* 25		— 63 11			— 106 14
	— 2,205	— 2,205 00	— 560 82			— 400 00
			— 358 75			— 2 50
						— 1 00
						— 1,520 04
						* 58 75
						— 1,461 29
						1,461 29
						58,044 44
						22,060 36
						\$80,104 84

N. B. The price of lime and pier stone in 1821 and 1822, is different.

*Estimate of materials and workmanship to complete Fort Delaware.*

1.	2512 perches building stone,	-	-	at \$ 1 00	\$ 2512 00
2.	1186 do do	-	-	- 2 00	2372 00
3.	260,000 bricks,	-	-	- 8 00	2080 00
4.	9000 bushels of lime,	-	-	- 35	3150 00
5.	1000 tons sand,	-	-	- 50	500 00
6.	300 casks Roman cement,	-	-	- 9 00	2700 00
7.	Copper hinges, bolts, &c. for magazines,				100 00
8.	Laying 5942 perches building stone,	-	-	75	4456 00
9.	Do 1380 do range do	-	-	1 50	2070 00
10.	Do. 705,000 bricks,	-	-	- 3 00	2115 00
11.	Labor of ten men ten months,	-	-	-	2500 00
12.	Cutting 50,000 sup. feet stone,	-	-	- 25	1250 00
13.	Carpenters' work, lower platform,	} including trussing girders, galleries, and railing.			3730 00
14.	do upper do do.				2745 00
15.	do 5 magazines,	-	-	-	225 00
16.	do gallery and bridge,	-	-	-	110 00
17.	do embrasure shutters,	-	-	-	217 00
18.	do do window,	-	-	-	50 00
19.	Carpenters' work resetting centers,	-	-	-	600 00
20.	Lumber for 2 buildings for officers' quarters,				1150 00
21.	Carpenters' work for do	-	-	-	2100 00
22.	Plastering,	-	-	-	320 00
23.	Painting and glazing,	-	-	-	170 00
24.	Ironmongery for do.	-	-	-	194 00
25.	2 privies,	-	-	-	100 00
26.	71,500 feet plank,	} for platforms and gal-			1430 00
27.	189,700 feet scantling,	} leries.			3224 90
28.	177 piles,	-	-	-	531 00
29.	To finish well,	-	-	-	100 00
30.	4 cisterns,	-	-	-	300 00
31.	Plumber's bill,	-	-	-	200 00
32.	Contingencies,	-	-	-	1500 00

Total amount,

\$ 56,051 90

True copy from the original.

ADJUTANT GENERAL'S OFFICE,

Washington, January 15th, 1825.

CHARLES J. NOURSE,

Adjutant General.



No. 7—J.

NEW CASTLE, January 22, 1824.

SIR:—I have the honor to transmit to you herewith, a table &c. agreeably to your order of July last: a report (or memori,) I am at work upon, and shall complete as soon as I receive from Captain De Russey, an abstract of payments by him made, last November. I had believed that I had furnished him with sufficient data, on which to found the report called for: I regret, extremely, that it was not found so. The furlough asked by me last Fall, was the first I have enjoyed for thirteen years, it being *solely* for the recovery of my health. I calculated I had nothing else to attend to. This circumstance will, I hope, constitute a claim on your indulgence, should any thing be found wanting in *form*.

With great respect, sir,  
Your obedient servant.

Maj. Gen. ALEX. MACOMB,  
Chief Engineer Corps.



No. 9.—K.

NEW CASTLE, 29th January, 1824.

SIR: Your letter of the 24th is received. I find you have misunderstood my meaning in the table I had the honor to transmit to you. As regards the sum required to finish Fort Delaware, the calculation was made from the 30th September, 1823, and not from the present time; that sum, in fact, being the unexpended balance of the appropriation at that time; consequently, what has been expended since, is to be deducted, to find the sum required, from the present time. It has been a long time since I have been able to see the work; but I am preparing an estimate. I suspect there must have been some waste last Fall, in consequence of the want of good superintendence; but I never calculated that any further appropriation would be found necessary, although I know that is the opinion of Captain De Russey.

With great respect, I am, Sir,

Your obedient servant,

S. BABCOCK, *Maj. Engineers.*

To Maj. Gen. ALEXANDER MACOMB,

*Chief Engineer.*

True copy from the original.

*Adj. General's Office, Washington, Jan. 15, 1825.*

CHS. J. NOURSE, *Acting Adj. Gen.*

No. 10.—L.

NEW CASTLE, 17th February, 1824.

SIR: Herewith you will receive an estimate of the cost of finishing Fort Delaware, from the present date. The reason why it exceeds the amount of funds not drawn, together with the balance on hand, are as follows:

1st. When the estimate was made in 1822, the plan of roofing was not adopted, and, of course, not included therein: this has, or will, cost about \$7000, a much greater sum than was calculated on at first, although I employed, to assist me in making it, a very able mechanic of Philadelphia.

2nd. The destruction of embankments last April, which could not have been foreseen.

3d. When the estimate was made, there was a fair prospect of obtaining stone, for coping, from this neighborhood: we were disappointed; and being obliged to procure them from New England, the cost was greatly enhanced.

4th. The cost of the pier stone, to secure the breaches made by the April gale.

5th. The unprecedented sickness of the last season, which rendered even those who were not attacked with it, only the half of themselves, from apprehension and discouragement.

As to the carpenters' work, I confess I have been deceived. It is the most difficult thing in the world to estimate; even among the carpenters themselves, it is a sort of guess-work. The fact is, Fort Delaware, from its peculiar situation, is liable to many expenses, which are not to be foreseen, particularly as the cost of wharfing and embanking have already been blended with the work itself. While I am on the subject of embankments, permit me to recommend that an appropriation be made for the *particular purpose* of securing the island. What has been done, I did on my own responsibility out of the Fortifications' Fund: it was a case of necessity: but to make a permanent establishment of it, would require at least \$20,000.

In conclusion, I have only to add, that my best faculties of mind and body have been employed to *make* Fort Delaware and its appendages what they should be.

With great respect, I am, &c. &c.

SAML. BABCOCK, *Maj. Engineers.*

To Maj. Gen. MACOMB,

*Chief Engineer, U. S.*

*Estimate of the amount of funds required to complete Fort Delaware.*

Carpenters' work, of two buildings for officer's quarters	\$1,900 00
platform of second tier -	3,000 00
upper tier and weather boarding -	650 00
framing roof and shingling -	1,675 00
gutters of roof -	1,160 00
three casemates for barracks -	300 00
Painting and glazing -	90 00
Plaistering and materials -	200 00
Cost of two privies -	150 00
Mason work.—Laying 1,933 perch building stone -	1,449 75
320 perch range stone -	480 00
cutting 15,000 feet stone -	3,750 00
laying 170,000 bricks -	510 00
Smith Work.—One smith, three months -	90 00
Materials.—6,000 feet coping stone -	1,500 00
1,733 perch building stone -	1,733 00
220 perch range stone -	550 00
150,000 bricks -	1,200 00
Labor of ten men, four months -	1,000 00

10,000 shingles	-	-	-	-	-	200 00
Nails and spikes	-	-	-	-	-	500 00
Contingencies.—Cost of furnishing workmen with water						90 00
compensation for disbursements	-					240 00

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\$22,507 75

Unexpended balance 12,752 00

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Difference \$9,755 75

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February 17, 1824.

True copy from the original.

ADJUTANT GENERAL'S OFFICE,

Washington, Jan. 15, 1825.

CH. J. NOURSE,

*Act'g Adj. Gen.*

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M.

TROY, April 22d, 1816.

SIR: When I was at West Point, a few days ago, I examined Belknap's work very attentively, to determine the manner in which he generally secured his foundation. There was no instance in which he placed the piles more than three feet from centre to centre. I found, too, that in the detail he gives of the great sluices, &c. about which he writes, and some of which were constructed by the greatest Engineers, (Vauban and others) there was no case of their being nearer. I considered this information might be useful to you. I beg leave to offer the sketch below, as one that shews an arrangement of Piles and Grillage, that will be sufficient, according to the practice stated above.

[Here, in the original, is a diagram of the plan.]

The whole work of the piers from the piles to the finishing at top, must be kept separate from that of the exterior walls.

The piles may be sawed off at low water mark, but all the spaces between the "crossing and length timbers," must be filled in, either with masonry, well laid in clay, or, (if the mud be very hard) mud rammed and very much compacted, so that the "length timbers" and planks may be separated by it, as well as the wood work beneath them. Mud must be rammed on the outside, too, of the piles and ex-

terior walls. The outside courses of piles should be left six inches higher than the others; so that the ends of the "crossing timbers" being "spotted," they can be secured to those piles by pins, thus:

[*Here, in the original, is a diagram of the plan.*]

The dots shew where the mud should be rammed, to exclude the air from, and to support the wood work of the foundation; and, indeed, if all the earth to the level of the parade, be thus rammed, the object will the more certainly be accomplished.

I should be very glad to hear from you, of your progress, and projects, and difficulties, and of the expense.

I am, in great haste,

Yours,

JOS. G. TOTTEN.

Capt. SAMUEL BABCOCK, Engineer.

True copy from the original.

ADJUTANT GENERAL'S OFFICE,

*Washington, January 15th, 1825.*

CHARLES J. NOURSE,

*Acting Adjutant General.*

#### ORDERS.—No. 70.

ADJUTANT GENERAL'S OFFICE.

*Washington, September 22, 1824.*

By direction of the Secretary of War, the General Court Martial, of which Colonel Archer, Inspector General, is President, convened by general order of the 10th of August, 1824, at New Castle, and at Wilmington, Delaware, for the trial of Major S. Babcock, of the Corps of Engineers, is dissolved; Major Babcock is released from arrest, and will repair to Old Point Comfort, and report himself to Lieutenant Colonel Charles Gratiot, of the Corps of Engineers, for duty as an Assistant.

Communicated by order of Major General Brown.

SAMUEL COOPER, *Aid-de-Camp.*

True copy from the original.

ADJUTANT GENERAL'S OFFICE,

*Washington, January 15th, 1825.*

CH. J. NOURSE, *Acting Adj. Gen.*





